



Meeting Agenda

Subject:	Hazard Mitigation Plan Update Kick Off Meeting	Date & Time:	1:00 - 3:30 PM October 26, 2010
Leader:	Richard Abrams	Location:	Buellton Recreation Center 301 Second St., Buellton Room A
Purpose:	Establish collaborative process for developing the updated plan		
Attendees:	Refer to Sign-In Sheet		

Item	Description	Lead	Est. Time
1	Welcome and Introductions	Richard Abrams	5 Minutes
2	Plan Update Process	Dewberry	25 minutes
3	Review & Prioritize Hazards / Discuss recent natural hazard events since 2004	Dewberry / All	30 minutes
4	Review & Modify Goals/Objectives	Dewberry	15 minutes
5	Review & Identify Progress of Mitigation Actions	Dewberry	25 minutes
6	Discuss Next Steps / Determine Public Participation process	Dewberry	20 minutes
7	Next Meeting - Closing Comments	Richard Abrams	5 minutes

Santa Barbara County Mitigation Advisory Committee
 Santa Barbara Hazard Mitigation Plan Update
 CONTACTS (Last Updated November 7, 2011)

Initial HERE	Name	Title	Mail address	Desk / Cell / Fax	Email address
County	Richard Abrams MAC1, MAC2, MAC3	Emergency Mgr	SB Co OES 4408 Cathedral Oaks Rd. Santa Barbara, California 93110		rabrams@countyofsb.org
	Dave Rickard MAC1, MAC2, MAC3	Recovery Mgr	SB Co Public Works 620 West Foster Rd Santa Maria, CA 93455		Drickar@co.santa-barbara.ca.us
	Michael Harris MAC1	Emergency Operations Chief	SB Co OES 4408 Cathedral Oaks Rd. Santa Barbara, California 93110		mharris@countyofsb.org
Buellton	Marc Bierdzinski MAC1, MAC2, MAC3	Planning Director/Emerge ncy Services Coordinator	City of Buellton P.O. Box 1819 Buellton, CA 93427		marcb@cityofbuellton.com
	Linda Reid	City Clerk	City of Buellton P.O. Box 1819 Buellton, CA 93427		Lindar@cityofbuellton.com
Carpinteria	Kristin McGuire MAC1, MAC3	Coordinator Emergency Services	City of Carpinteria 5775 Carpinteria Ave. Carpinteria 93013	Left City of Carpinteria in July 2011.	
	Charlie Ebeling	Public Works	City of Carpinteria 5775 Carpinteria Ave. Carpinteria 93013		cebeling@ci.carpinteria.ca.us

Santa Barbara County Mitigation Advisory Committee
 Santa Barbara Hazard Mitigation Plan Update
 CONTACTS (Last Updated November 7, 2011)

Initial HERE	Name	Title	Mail address	Desk / Cell / Fax	Email address
	Melissa Angeles	Administrative Aide	City of Carpinteria 5775 Carpinteria Avenue Carpinteria, CA 93013		MelissaA@ci.carpinteria.ca.us
	Dave Durflinger	City Manager/ Emergency Manager	City of Carpinteria 5775 Carpinteria Ave., Carpinteria 93013		daved@ci.carpinteria.ca.us
Goleta	Vyto Adomaitis (POC) MAC1	Director	130 Cremona Suite b, Goleta, Ca 93117		vadomaitis@cityofgoleta.org
	Greg Nordyke (alternate) MAC1, MAC2	Code Enforcement	130 Cremona Suite B, Goleta, Ca 93117		gnordyke@cityofgoleta.org
	Claudia Dato MAC1, MAC2, MAC3	Management Analyst	130 Cremona Dr., Ste B Goleta, CA 93111		cdato@cityofgoleta.org
Guadalupe	Jack Owen, Jr. (POC) MAC1, MAC2, MAC3	Fire Chief	918 Obispo Street, Guadalupe, CA 93434		jackowen@ci.guadalupe.ca.us
	Regan Candalario (Alternate)	City Administrator	918 Obispo Street, Guadalupe, CA 93434		rc@ci.guadalupe.ca.us
Lompoc	Robert Kovach MAC1, MAC2, MAC3	Battalion Chief (until 10.31.2011)	115 South "G" Street, Lompoc, CA. 93436	Left City as of 10.31.2011	

Santa Barbara County Mitigation Advisory Committee
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Initial HERE	Name	Title	Mail address	Desk / Cell / Fax	Email address
	Linual White (Alternate)	Fire Chief	115 South "G" Street, Lompoc, CA. 93436		l_white@ci.lompoc.ca.us
	Alex Ubaldo MAC2	Engineering Division	100 Civic Center Plaza, Lompoc, CA 93438		A_ubaldo@ci.lompoc.ca.us
	Jeff States	Fire Chief			J_states@ci.lompoc.ca.us
	Mark Bray	Battalion Chief (after 10.31.2011)			M_bray@ci.lompoc.ca.us
Santa Barbara	Yolanda McGlinchey MAC1, MAC2, MAC3	Manager	121 W. Carrillo Street Santa Barbara, CA 93101		ymcglinchey@santabarbaraca.gov
Santa Maria	Jeffrey Jones MAC1	Fire Chief (until December 19, 2011)		Retired December 19, 2011	
	Dan Orr	Fire Chief	314 W. Cook Street Suite 8 Santa Maria, CA 93458		
	Mark Van De Kamp MAC2	Management Analyst II	City Manager's Office 110 E. Cook Street, Rm. 2 Santa Maria, CA 93454		mvandekamp@ci.santa-maria.ca.us

Santa Barbara County Mitigation Advisory Committee
 Santa Barbara Hazard Mitigation Plan Update
 CONTACTS (Last Updated November 7, 2011)

Initial HERE	Name	Title	Mail address	Desk / Cell / Fax	Email address
	Roy Dugger MAC2	Aware and Prepare Manager			rdugger@ci.santa-maria.ca.us
Solvang	Mary Ellen Rio, MAC2	Certified Municipal Clerk	1644 Oak Street Solvang, Ca. 93463		maryellenr@cityofsolvang.com
County Fire	Rick Joyner	Batt Chief			rick.joyner@sbcfire.com
County Fire	Bob Tanner MAC1, MAC2, MAC3	Captain			robert.tanner@sbcfire.com
Transportation (Geologist)	Bill Tracy MAC1, MAC2, MAC3		4415 Cathedral Oaks Rd. Santa Barbara, CA 93110		tracy@cosbpw.net
County Flood	Mike Parker				mparker@cosbpw.net
County Parks	Juan Beltranena MAC2	Capital Projects Manager	610 Mission Canyon Rd. Santa Barbara, CA 93105		jbeltranena@sbparks.org
	Tom Fayram MAC1	Parks Director			tfayram@cosbpw.net
Planning	Nathan Eady MAC1, MAC2, MAC3	Senior Planner	Long Range Planning	No longer with County.	neady@countyofsb.org
	Paul Clementi MAC1, MAC2, MAC3	Assistant Planner	Long Range Planning		pclementi@countyofsb.org

Santa Barbara County Mitigation Advisory Committee
 Santa Barbara Hazard Mitigation Plan Update
 CONTACTS (Last Updated November 7, 2011)

Initial HERE	Name	Title	Mail address	Desk / Cell / Fax	Email address
Ag Commiss.	Guy Tingos MAC2		Ag Commissioner's Office		gtingos@co.santa-barbara.ca.us
UCSB	Jim Caesar MAC1, MAC3	Emergency Mgr	UCSB 565 Mesa Road Santa Barbara, CA		James.Caesar@ehs.ucsb.edu
Cal EMA	Jeri Siegel MAC1, MAC2, MAC3	Emergency Services Coordinator	200 N. Halcyon Road Arroyo Grande, CA 93420		Jeri.siegel@calema.ca.gov
Dewberry Consulting	Scott Choquette MAC1	Consultant			schoquette@dewberry.com
	Corinne Bartshire MAC1, MAC2	Consultant	1410 Rocky Ridge Drive #305 Roseville, CA 95661		cbartshire@dewberry.com

Santa Barbara County Hazard Mitigation Plan Update

Mitigation Advisory Committee Meeting #1
Kick Off

October 26, 2010 - 1:00pm
Buellton Recreation Center




Meeting Objectives

- Understand Plan Update Requirements
- Review Past Hazard Events
- Determine Hazard Prioritization
- Review and Modify Goals/Objectives
- Discuss Progress of Mitigation Actions
- Determine Next Steps
 - Extended Stakeholders
 - Public Participation
 - Mitigation Strategy




Plan Update Requirements

- **Adoption**
 - Each participating jurisdiction must provide resolution of adoption
- **Planning Process**
 - Describe the process
 - Describe HOW each jurisdiction participated
 - Describe opportunities for public involvement (draft & prior to approval)
 - Describe opportunities for neighboring communities, agencies, businesses, academia, non-profits, etc (extended stakeholders)
 - Describe review of existing plans, studies, & reports as relevant for incorporation/reference in the LHMP (included in Capabilities Assessment)
 - OPTIONAL: Capabilities Assessment




Plan Update Requirements

- **Risk Assessment**
 - Description of all hazards that affect the planning area & rationale for omitting recognized hazards from analysis
 - Must include variation of risk for each participating jurisdiction
 - Hazard Profiles
 - Location
 - Extent
 - Previous occurrences
 - Probability of future events
 - Vulnerability Assessment
 - Summary of each jurisdiction's vulnerability to each hazard
 - Summary of impact of each hazard on each jurisdiction
 - OPTIONAL: types and numbers of existing/future buildings, infrastructure, and critical facilities in identified hazard areas
 - OPTIONAL: estimate of potential dollar losses to vulnerable structures & methodology
 - OPTIONAL: land use development trends




Plan Update Requirements

- **Mitigation Strategy**
 - Mitigation Goals
 - Long term desires based on risk assessment findings
 - Identification & Analysis of Mitigation Actions
 - Comprehensive range of specific mitigation actions and projects for each hazard
 - Projects must address reducing the effects of hazards on New / Existing buildings and infrastructure
 - Implementation of Mitigation Actions
 - Prioritization of actions
 - How the actions will be implemented and administered
 - Cost-benefit review
 - Must have one identifiable action item for each jurisdictions requesting FEMA approval of the plan




Plan Update Requirements

- **Plan Maintenance Process**
 - Monitoring, Evaluating, and Updating the Plan
 - Method and schedule for monitoring, evaluating, and updating the plan
 - Incorporation into Existing Planning Mechanisms
 - Identification of local planning mechanisms available for incorporating LHMP requirements (ie. safety element, land use element, flood mitigation plan)
 - Process by which the local gov't will incorporate the LHMP requirements into other plans, when appropriate.
 - Continued Public Involvement
 - How continued public participation will be obtained




It's Your Plan

We are here to:

- Facilitate the process
- Lend technical expertise and consultation
- Do the heavy lifting and dirty work

You need to:

- Participate
- Make the final decisions
- Make sure that the plan is feasible and meets your needs




Previously Identified Hazards

Hazard Type and Ranking	Planning Consideration Based on Hazard Level
1. Flooding (52)	Significant
2. Wildfire (50)	Significant
3. Earthquake (41)	Significant
3. Coastal Surge/Tsunami (36)	Moderate
4. Landslide/Coastal Erosion (26)	Limited
5. Dam Failure (22)	Limited




Santa Barbara County Hazard Identification and Prioritization (recent events?)




Goals & Objectives (County)

- Goal 1. Promote Disaster-resistant future development.
- Goal 2. Increase public understanding and support for effective hazard mitigation.
- Goal 3. Build and support capacity and commitment to become less vulnerable to hazards.
- Goal 4. Enhance hazard mitigation coordination and communication with federal, state, local and tribal governments.
- Goal 5. Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and County-owned facilities, due to: Floods, Wildfire, Earthquakes, Landslides/Coastal Erosion, Coastal Storm/Tsunami, Dam Failure




Mitigation Actions

- Note previously identified actions as: completed, in progress, deferred, or deleted & state reasoning.
- Identify new mitigation actions (based on updated risk assessment)




Next Steps

- Update county-wide and jurisdiction specific risk assessments
 - Dewberry to develop drafts for review
- Update capabilities assessments
 - Dewberry to develop surveys and information request
- Update Mitigation Strategy
 - Dewberry to develop drafts for review
 - Discuss collaboratively at MAC Meeting #2
- Public Participation
 - Online survey / public meetings
 - Solicit Input from Extended Stakeholders




Next Steps (continued)

- Develop complete County Hazard Mitigation Plan Draft
- Revi= Plan Draft & Disruss Plan Maintenance Process
- Submit to CalEMA





Meeting Agenda & Notes

Subject:	Hazard Mitigation Plan Update Kick Off Meeting	Date & Time:	1:00 - 3:30 PM October 26, 2010
Leader:	Richard Abrams	Location:	Buellton Recreation Center 301 Second St., Buellton Room A
Purpose:	Establish collaborative process for developing the updated plan		
Attendees:	Refer to <i>SignIn_10262010_KickOff.doc</i>		

Item	Description	Lead	Est. Time
1	Welcome and Introductions	Richard Abrams	5 Minutes
2	Plan Update Process (refer to: <i>SantaBarbara_MAC_KickOff_presentation_10262010.ppt</i>)	Dewberry	25 minutes
3	<p>Review & Prioritize Hazards / Discuss recent natural hazard events since 2004</p> <p>The MAC reviewed the identified and excluded hazards in the previous plan (<i>HazardReview.docx</i>). Based on discussion the MAC agreed upon the following changes: *add Climate Change consideration throughout the risk assessment *add Agricultural Pests & Disease as an identified hazard *separate Coastal Storm Surge from Tsunami to consider both hazards separately</p> <p>The MAC discussed the probability and likely impact of the identified hazards and updated the ranking using the excel tool (<i>SBCO Hazard Ranking_10262010.xls</i>).</p>	Dewberry / All	30 minutes

	<p>The MAC ranking reflects priorities for the Countywide Operational Area. Each participating jurisdiction is encouraged to revise these rankings as appropriate.</p> <p>Note: Richard Abrams is following up with the Ag Commissioner to identify the ranking for Ag Disease and Pests.</p>		
4	<p>Review & Modify Goals/Objectives</p> <p>The MAC reviewed the Countywide Operational Area Goals and confirmed they remain valid. (refer to <i>Goals_Objectives_Review.docx</i> for a consolidated list of the goals and objectives in the 2004 plan)</p> <p>Each jurisdiction is asked to review their previous goals and objectives with a local planning team. Newly participating jurisdictions may wish to use these as guidance for developing their goals and objectives.</p>	Dewberry	15 minutes
5	<p>Review & Identify Progress of Mitigation Actions</p> <p>Each jurisdiction with identified actions in the 2004 plan has agreed to use the <i>MitigationActionStatus.xls</i> tool to report on the progress of each action. This tool is provided to the jurisdictions pre-populated with the identified actions. Each jurisdiction is asked to note three things for each action:</p> <ol style="list-style-type: none"> 1. Whether it is "in progress, completed, deferred, or should be deleted". 2. Completion date (or estimated completion date) 3. Comments (reason for deleted or deferred status, discussion of progress, or comments regarding success of the completion) 	Dewberry	25 minutes

6	<p>Discuss Next Steps / Determine Public Participation process</p> <p>These meeting notes and accompanying materials serve as the immediate next step. Each participating jurisdiction is asked to do the following in collaboration with a local planning team:</p> <ol style="list-style-type: none"> 1. Update the hazard ranking specific to their jurisdiction 2. Report on mitigation action status using the provided tool 3. Prepare a revised list (GIS Shapefile) of critical facilities, and 4. Provide the consultant (Dewberry) with updated planning documents 	Dewberry	20 minutes
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Additional Notes:

Goleta identified a concern for gas pipeline safety. They would like to better understand the risk. Richard Abrams encountered difficulty in requesting this information previously.

Michael Harris asked for a discussion regarding water supply. The MAC agreed this is a valid item for consideration as a secondary impact from large earthquake events.

Bill stated that a belt of expansive soil goes from Goleta to Summerland. A lot of projects regarding expansive soils have been completed over the last 20 years.

The City of Santa Barbara has unpublished liquefaction maps.

There were windstorm disasters in 2006 and 1996.

Permitting of agricultural reservoirs has increased exponentially in the County. The County planning department can identify which parcels have a permitted ag reservoir. If one of these reservoir dams failed it could take out a road or undercut a bridge.

Some dam inundation maps are available.

Guadalupe indicated significant concern that a large earthquake event could result in the majority of downtown failing because earthquake retrofits are not complete.

There was a 3' tsunami impacting Santa Barbara Harbor.

Accompanying Materials:

1. Signln_1026201 O_KickOff.doc
2. SantaBarbara_MAC_KickOff_presentation_1026201 O.ppt
3. HazardReview.docx
4. SBCO Hazard Ranking_1026201 O.xls
5. Goals_Objectives_Review.docx
6. MitigationActionStatus.xlsx
7. Hazard Mitigation Schedule.pdf
8. HMPMeetinglogTemplate.doc



Meeting Agenda

Subject:	Hazard Mitigation Plan Update Milestone Meeting #2	Date & Time:	10:00am - 12:00 pm March 2, 2011
Leader:	Richard Abrams	Location:	Buellton Recreation Center 301 Second St., Buellton Room A
Purpose:	Review update progress and discuss revised mitigation strategy		
Attendees:	Mitigation Advisory Committee Refer to Sign-In Sheet		

Item	Description	Lead	Est. Time
1	Welcome and Introductions	Richard Abrams	5 Minutes
2	Review overall progress	Dewberry	10 minutes
3	Review updated hazard profiles	Dewberry / All	30 minutes
4	Discuss vulnerability assessment (critical facilities and hazard area data)	Dewberry	15 minutes
5	Review & Modify Goals/Objectives	Dewberry/ All	20
5	Identify new mitigation actions & Prioritize all current mitigation actions	Dewberry/ All	25 minutes
6	Discuss Next Steps / Determine Public Participation process	Dewberry	10 minutes
7	Next Meeting - Closing Comments	Richard Abrams	5 minutes

Santa Barbara County Hazard Mitigation Plan Update

Mitigation Advisory Committee
Milestone Meeting #2

March 2, 2011- 10:00am
Buellton Recreation Center




Meeting Objectives

- Review Overall Progress
- Review Updated Hazard Profiles
- Discuss Vulnerability Assessment Methodology
- Review and Modify Goals/Objectives
- Identify and Prioritize Mitigation Actions
- Discuss Next Steps
 - Extended Stakeholders
 - Public Participation




Progress to Date

Collected from each jurisdiction:

- Local Planning Team
- Hazard Ranking
- Mitigation Action Status
- Critical Facilities
- Planning Documents Updated

Hazard Profiles Begin
Capability Assessments
Organize Draft Plan




DRAFT Plan Format

Participating Jurisdictions:

- County of Santa Barbara
- City of Buellton
- City of Carpinteria
- City of Goleta
- City of Guadalupe
- City of Lompoc
- City of Santa Barbara
- City of Santa Maria
- City of Solvang




DRAFT Plan Format (main plan)

- Section 1: Introduction
- Section 2: Plan Purpose and Authority
- Section 3: Planning Process
- Section 4: County Capability Assessment
- Section 5: Hazards Assessment
- Section 6: County Vulnerability Assessment
- Section 7: County Mitigation Strategy
- Section 8: Plan Maintenance




DRAFT Plan Format (city sections)

Section 9: City of Buellton

- 9.1 Introduction
- 9.2 Internal Planning Process
- 9.3 Capability Assessment
- 9.4 Hazards Assessment
- 9.5 Vulnerability Assessment
- 9.6 Mitigation Strategy
- 9.7 Plan Maintenance




Identified Hazards

Hazard	Planning Consideration Based on Ranking Exercise
Flooding (including coastal surge) (58)	Significant
Wildfire (54)	Significant
Agriculture (pests and disease) (42)	Significant
Earthquake (41)	Significant
Landslide/Coastal Erosion (36)	Moderate
Dam Failure (24)	Limited
Tsunami (24)	Limited




Santa Barbara County Hazard Profile Updates

1. Hazard Description
2. History of Hazard Events
3. Location and Extent
4. Probability of Occurrence




Flooding (including Coastal Surge)

February 2005	\$2 million	NCDC	In Santa Barbara county, flash flooding and mudslides closed down Highway 101 at Bates Road.
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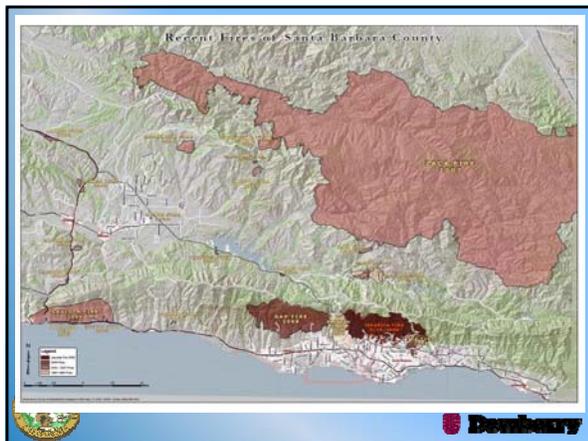



Major Fires in Santa Barbara County

Year	Fire Name	Acres Burned
1922	Kelley Ranch	59,600
1923	Oso Canyon	70,000
1928	Aliso Canyon	42,880
1933	Indian Canyon	30,500
1950	San Marcos	9,500
1959	Big Dalton	73,450
1955	Refugio	84,770
1964	Coyote	67,000
1966	Wellman	93,600
1971	Romero	14,536
1977	Sycamore Canyon	805
1977	Hondo Canyon	8,087
1979	Spanish Ranch	1,190
1979	Eagle Canyon	3,765
1990	Paint	4,424
1993	Mare	43,864
1994	Oak Hill	2,130
1997	Santa Rosa	3,074
1999	Spanish	22,296
1999	Camuesa	180
2000	Harris	8,684
2002	Sudien	7,500
2004	Gaviota	7,197
2006	Perkins	14,923
2007	Zaca	240,207
2008	Gap	9,443
2008	Tea	1,940
2009	Jesusita	8,733

Source: U. S. Forest Service, Santa Barbara County Fire Department, 2009





Agriculture (pests and disease)

History:
 Santa Barbara County has a demonstrated vulnerability to insect infestation. Infestations of Medfly, Gypsy Moth, Oriental Fruit Fly, Glassy-winged Sharpshooter, Vine Mealybug and Light-brown Apple Moth have all occurred in the last 30 years. All but the sharpshooter and the mealybug were successfully eradicated. Diseases such as Chrysanthemum White Rust and Pierce's Disease of Grapes have caused significant losses to local growers. The rust has been eradicated, Pierce's Disease has not.

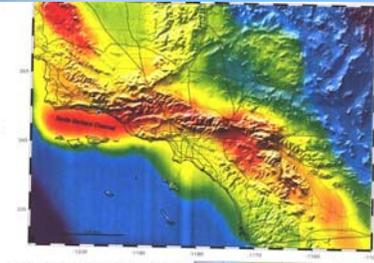
Location and Extent: ?

Probability of Occurrence: ?




Earthquake

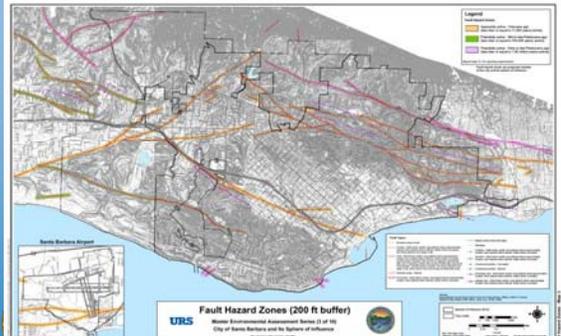
Notable events since San Simeon (December 22, 2003)?



Times per century earthquake shaking will exceed 20% the force of gravity in Santa Barbara.



Earthquake



Landslide/Coastal Erosion

In January 2005, flash flooding and mudslides closed Gibraltar Road at Mt. Calvary Road, stranding several vehicles, while mudslides inundated 3 homes in Lake Casitas.

South County

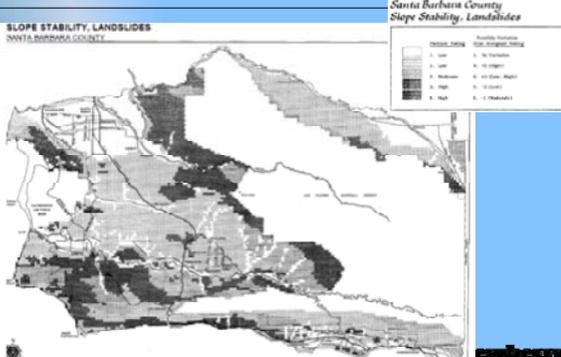
- Palomino Road (1995, 1998)
- Gibraltar Road (1995, 1998, 2001, 2003)
- Glen Annie Road (1995, 1998, 2001, 2004)
- All Roads underlain by the Rincon Shale Formation.
- Refugio Road (1995, 1998, 2001)
- Ortega Hill Road (1995, 1998)
- Stagecoach Road (Constant, 2003, 2004)
- Painted Cave (1995, 1998)
- Old San Marcos Road (1995, 1998, currently moving)
- Gobernador Canyon (1995, 1998, currently moving)
- East Mountain Drive (1995, 1998, 2001)

North County (Most experienced sliding in 1995 and 1998, and are considered ongoing threats)

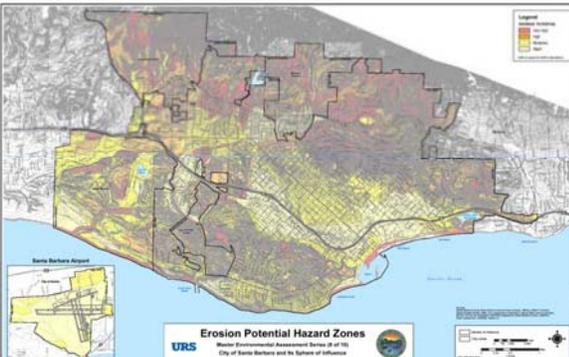
- Miguelito Canyon
- Sweeney Road
- Jalama Road
- Point Sal Road
- Drum Canyon Road
- Mail Road
- Santa Rosa Road
- Figueroa Mountain Road



Landslide/Coastal Erosion



Landslide/Coastal Erosion

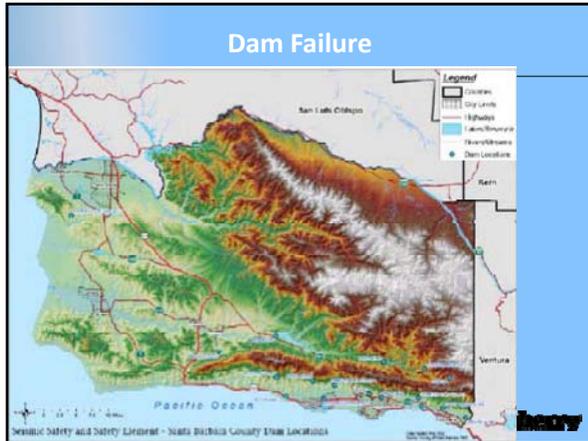


Dam Failure

Built in 1917, the Sheffield Dam only survived for eight years, failing catastrophically during an earthquake in 1925. The floods of 1995 and the nearby 1994 Northridge earthquake prompted the Santa Barbara County Grand Jury to investigate preparedness for disasters within the County of Santa Barbara.

The City of Lompoc has plotted those areas of the city that would be impacted by flood waters and has installed warning sirens, designated evacuation routes, and held simulated drills.





Tsunami

On February 27th of 2010, a magnitude 8.8 earthquake occurred along the central coast of Chile and produced a tsunami. Tsunami waves of around 3 feet were reported by tide gauges across the Santa Barbara Channel. At Santa Barbara Pier, significant beach erosion was reported along with displacement of buoys. The tsunami surge lasted in excess of 20 hours.

Tsunami run up in Goleta.
Cal EMA tsunami inundation mapping.

Santa Barbara County Vulnerability Assessment Methodology




Santa Barbara County Critical Facilities Status Report




Hazard Mapping	
Hazard	Available Mapping via County GIS Data Catalogue
Flooding (including coastal surge)	DFIRM Overlay – Flood Hazard
Wildfire	Fire Hazard Severity Zones (state 9.22.2009) Fire History (state 10.22.2009)
Agriculture (pests and disease)	Agricultural Growers' Sites Agricultural Preserves (Williamson Act)
Earthquake	(CGS Alquist Priolo Fault Zoning) (PGE pipeline) (safety element of general plan)
Landslide/Coastal Erosion	(safety element of general plan) (City of Santa Barbara)
Dam Failure	(inundation maps from Cal EMA?)
Tsunami	Tsunami Runup Limits

Goals & Objectives (County)

- Goal 1. Promote Disaster-resistant future development.
- Goal 2. Increase public understanding and support for effective hazard mitigation.
- Goal 3. Build and support capacity and commitment to become less vulnerable to hazards.
- Goal 4. Enhance hazard mitigation coordination and communication with federal, state, local and tribal governments.
- Goal 5. Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and County-owned facilities, due to: Floods, Wildfire, Earthquakes, Landslides/Coastal Erosion, Coastal Storm/Tsunami, Dam Failure




Mitigation Actions

- **Compiled Mitigation Action Status Report provided for review.**
- **Identify new mitigation actions (based on updated risk assessment)**
- **Prioritize mitigation actions**



Next Steps

- **Public Participation**
 - Online survey / public meetings
- **Draft Vulnerability Assessment**
 - Confirm accuracy of critical facilities data
 - Confirm best hazard area data
 - Dewberry to compile and circulate for review
- **Draft City Sections**
 - Dewberry to develop drafts for review
- **Develop complete County Hazard Mitigation Plan Draft**
- **Review Plan Draft & Discuss Plan Maintenance Process**
- **Submit to CalEMA**





Meeting Record

Subject:	Hazard Mitigation Plan Update Milestone Meeting #2	Date & Time:	10:00am - 12:00 pm March 2, 2011
Leader:	Richard Abrams	Location:	Buellton Recreation Center 301 Second St., Buellton Room A
Purpose:	Review update progress and discuss revised mitigation strategy		
Attendees:	Mitigation Advisory Committee Refer to updated Contact List: "MAC2" indicates participation in this meeting.		

Item	Description	Notes
1	Welcome and Introductions	
2	Review overall progress	<i>refer to PPT presentation</i>
3	Review updated hazard profiles	<p><i>refer to PPT presentation</i></p> <p>The hazard profiles are prepared from a county-wide perspective, allowing for specific concerns to be highlighted in each City's section of the plan.</p> <p>**All cities were asked to provide Dewberry with notes regarding which hazards are not relevant to their jurisdiction and/or specific concerns to their jurisdiction for particular hazards.</p> <p>Tsunami is not a relevant hazard for the City of Santa Maria.</p> <p>Agriculture pest/disease and tsunami are not relevant hazards for the City of Buellton.</p>

4	Discuss vulnerability assessment (critical facilities and hazard area data)	<p><i>refer to PPT presentation and Critical Facilities Status Report</i></p> <p>The MAC discussed appropriate mapping for each identified hazard. Dewberry will follow up with appropriate County representatives to obtain the most current mapping data.</p> <p>The vulnerability assessment will be conducted by overlaying the critical facilities locations with mapped hazard areas to identify facilities at most risk to the identified hazards. County OES requested an overview exposure analysis be conducted using general building stock data from HAZUS to demonstrate the total value of structures exposed to catastrophic hazard events within the County.</p>
5	Review & Modify Goals/Objectives	<p><i>refer to revised Goals/Objectives</i></p> <p>The MAC reviewed the goals/objectives from the 2004 plan to re-validate them. They removed irrelevant objectives and redundant items and re-organized the goals/objectives to create a more consolidated approach for tracking mitigation progress.</p> <p>Members of the MAC are asked to review the revised Goals/Objectives and submit comments to Corinne Bartshire (cbartshire@dewberry.com).</p> <p>**City representatives are asked to review the goals/objectives with their local planning team and revise them as appropriate for their jurisdiction.</p>
6	Identify new mitigation actions & Prioritize all current mitigation actions	<p>Dewberry discussed the need for identifying new mitigation actions and a process for reviewing the STAPLE/E criteria to prioritize the mitigation actions. Each jurisdiction will be better enabled to identify new mitigation actions upon receiving the draft vulnerability assessment. The MAC will collaborate at the next meeting to prioritize the County-wide mitigation actions.</p>

7	Discuss Next Steps / Determine Public Participation process	<p><i>refer to draft public survey</i></p> <p>**All MAC members are requested to provide comments on the draft public survey to Corinne Bartshire (cbartshire@dewberry.com) by Friday March 11. Additional questions, revisions, and suggestions for modifying the survey are welcome.</p> <p>Juan Beltranena will find a Spanish translator so the survey can be available to the Spanish speaking community members.</p> <p>Buellton and other jurisdictions requested a hard copy format of the survey to make available at the city counter for community members who do not access the internet.</p> <p>Dewberry will provide template language for distributing the survey via website postings and press releases. The survey will be disseminated the week of March 21st and available for public comment for one month.</p> <p>Project Schedule: March 2011: MAC members review & comment on hazards assessment and vulnerability assessment drafts April 2011: MAC members review & comment on capabilities assessment drafts MAC members identify new mitigation actions based on hazards assessment and vulnerability assessment. May 2011: MAC members meet to finalize prioritization of actions and discuss plan maintenance. MAC members review & finalize complete draft of mitigation plan. June 2011: Review Draft is submitted to Cal EMA and made available for public comment.</p>
8	Next Meeting - Closing Comments	The next MAC meeting will be scheduled for early May.

Santa Barbara County Hazard Mitigation Plan Update

Mitigation Advisory Committee
Milestone Meeting #3

May 18, 2011- 10:00am
Buellton Recreation Center




Meeting Objectives

- Update on Plan Draft Status
- Discuss Vulnerability Assessment Methodology
- Review and Prioritize Mitigation Actions
- Discuss Plan Maintenance
- What to expect for plan draft review




Plan Draft Status

Submitted to MAC for Review

- Survey Results (partially complete)
- Section 4: Countywide Capability Assessment
- Section 5: Countywide Hazard Profiles
- Section 6: Countywide Vulnerability Assessment
- City Annex Preliminary Drafts (note capability assessments & hazard rankings)

Pending Completion:

- Section 6: mapping to accompany vulnerability assessment, PGA analysis
- Section 7: Countywide Mitigation Strategy
- Section 8: Countywide Plan Maintenance

City Annexes:
Vulnerability Assessments, Mitigation Strategies, and Plan Maintenance
(includes City scale mapping of hazards & critical facilities)




DRAFT Plan Format (main plan)

Section 1: Introduction

Section 2: Plan Purpose and Authority

Section 3: Planning Process

Section 4: County Capability Assessment

Section 5: Hazards Assessment

Section 6: County Vulnerability Assessment

Section 7: County Mitigation Strategy

Section 8: Plan Maintenance




DRAFT Plan Format (city sections)

Section 9: City of Buellton

- 9.1 Introduction
- 9.2 Internal Planning Process
- 9.3 Capability Assessment
- 9.4 Hazards Assessment
- 9.5 Vulnerability Assessment
- 9.6 Mitigation Strategy
- 9.7 Plan Maintenance




Identified Hazards

Hazard	Planning Consideration Based on Ranking Exercise
Flooding (including coastal surge) (58)	Significant
Wildfire (54)	Significant
Agriculture (pests and disease) (42)	Significant
Earthquake (41)	Significant
Landslide/Coastal Erosion (36)	Moderate
Dam Failure (24)	Limited
Tsunami (24)	Limited




Countywide Survey Results

Hazard of Concern	Number of Responses
Earthquake	446
Wildfire	334
Flooding (including coastal surge)	245
Tsunami	118
Landslide/Coastal Erosion	106
Agriculture (pests and disease)	96
Dam Failure	90
Additional Hazards*	89

- 510 Respondants

County Survey Results

Property Mitigation	Responses
Defensible space landscaping (clear vegetation around house to reduce wildfire risk)	172
Roof retrofit using fire resistant material	108
Other (please specify)	108
Strengthened openings (Doors, windows, and/or garage door to reduce high-hazard wind risk)	60
Installed backflow prevention device(s)	53
Seismic retrofit of the structure and / or foundation	44
Installation of fire sprinklers	31
House elevation or first floor modification to prevent flood damage	30
Installation of fire hydrant or above ground water storage tank	18

County Survey Results

Item that is Readily Available	Responses
Can Opener	462
Cooking and eating utensils	446
Flashlight (with batteries)	444
Canned / Non-perishable Foods (ready to eat)	424
First Aid Kit/Supplies	413
Blanket(s)/ Sleeping Bag(s)	410
Extra Clothes and Shoes	383
Gas grill / Camping stove	347
Portable AM/FM Radio (solar powered, hand crank or batteries)	332
Potable Water (3 gallons per person)	317
Extra Medications	285
Telephone (with batteries)	268
Pet Supplies	235
Cash	234
Important Family Photos/Documentation in a water and fire proof container	146
Handheld "Walkie-Talkie" Radios (with batteries)	129
Gasoline	129
What else do you have in your emergency kit?	105

County Survey Results

Recommendations to the County & Local Governments:

- Continue programs such as first aid, CPR, and CERT,
- help provide grants to retrofit homes,
- provide information on how to retrofit homes,
- distribute emergency preparedness kits,
- ensure proper evacuation routes,
- provide training in unincorporated areas such as Orcutt, Los Alamos, or the Vandenberg Village area,
- continue Reverse 911,
- keep infrastructure such as storm drains updated,
- provide a way for residents to know what hazard zone they are located in,
- a program that would allow volunteer geologists and engineers to assist the County in the event of a major disaster,
- encourage neighborhood group meetings to discuss hazard awareness and preparedness,
- require employers with a certain amount of employees to have a disaster management plan.

Santa Barbara County Vulnerability Assessment Methodology

- Total Exposure based on HAZUS-MH
- Critical Facilities vs Hazard Areas
- City Annexes will focus on critical facilities and noted concerns

Total Exposure

Base Information	Value
Count of Census Tracts	86
Households	136,000
Total Population (2000 Census)	399,347
Total Buildings	128,000
Total Building Replacement Value (No contents)	\$32,239,000,000
% Residential Buildings	91%
% Residential Building Value (as a % of the \$32 billion total above)	79%
Replacement Value of the Transportation Systems	\$4,354,000,000
Replacement Value of the Utility Lifeline Systems	\$1,153,000,000
Dominant Construction Type	Wood Frame (83%)

Critical Facilities	Count
Hospitals	7 (Total bed capacity of 920)
Schools	162
Fire Stations	18
Police Stations	16
Emergency Operation Facilities	0
Dams	15 (11 identified as 'high hazard')
Hazardous Material Sites	10
Military Institutions	0
Nuclear Power Plants	0

Transportation System Lifeline Inventory

System	Component	# Locations or # of Segments	Replacement Value (Millions of Dollars)
Highway	Bridges	360	407.90
	Segments	270	3,299.40
	Tunnels	1	1.70
	Subtotal		3,709.10
Railways	Bridges	6	0.60
	Facilities	5	13.30
	Segments	157	263.90
	Tunnels	0	0.00
	Subtotal		277.80
Light Rail	Bridges	0	0.00
	Facilities	0	0.00
	Segments	0	0.00
	Tunnels	0	0.00
	Subtotal		0.00
Bus	Facilities	5	6.40
Ferry	Facilities	3	4.00
Port	Facilities	0	0.00
Airport	Facilities	5	53.30
	Runways	8	303.70
	Subtotal		357.00
		Total	4,354.20

Utility System Lifeline Inventory

System	Component	# Locations or # of Segments	Replacement Value (Millions of Dollars)
Potable Water	Distribution Lines	NA	181.60
	Facilities	0	0.00
	Pipelines	0	0.00
	Subtotal		181.60
Waste Water	Distribution Lines	NA	109.00
	Facilities	8	628.70
	Pipelines	0	0.00
	Subtotal		737.70
Natural Gas	Distribution Lines	NA	72.70
	Facilities	0	0.00
	Pipelines	0	0.00
	Subtotal		72.70
Oil Systems	Facilities	2	0.20
	Pipelines	0	0.00
	Subtotal		0.20
Electric Power	Facilities	4	519.20
Communication	Facilities	42	5.00
		Total	1,547.20

Critical Facility Exposure

- 293 identified & plotted, Pending relocation of public health facilities based on received GIS data
- Overlaid with:
 - FEMA Flood Zone
 - County Flood Overlay Zone
 - Wildland Urban Interface
 - Fire Threat
 - Fire Severity Zone
 - Landslide Incidence
 - Dam Inundation Zone
 - Tsunami Runup Areas
- Includes HAZUS EQ magnitude 7.0 scenario
- Pending agriculture and EQ shaking analysis

Goals (County)

- Goal 1. Promote disaster-resistant future development.
- Goal 2. Build and support capacity and commitment for existing assets, including people, critical facilities/infrastructure, and public facilities, to become less vulnerable to hazards.
- Goal 3. Enhance hazard mitigation coordination and communication.

Potential Projects (former objectives)

- Obtain better information on highest risk county owned buildings
- Perform mitigation alternative studies at known landslide-prone areas (areas of repeat sliding).
- Evaluate floodplain ordinance to determine the feasibility of encouraging floodplain construction standards in Tsunami inundation areas
- Provide dam inundation mapping as information only layer on FEMA DFIRMS and advise developers of lands in inundation areas.

Mitigation Actions

- Review Mitigation Action List
- Identify new mitigation actions (based on updated risk assessment)
- Prioritize mitigation actions

Next Steps

- **Plan Maintenance**
- Develop complete County Hazard Mitigation Plan Draft
- MAC Review
- Submit to CalEMA
- Public Review Period



Meeting Record

Subject:	Hazard Mitigation Plan Update Milestone Meeting #3	Date & Time:	10:00am - 12:00 pm May 18, 2011
Leader:	Richard Abrams	Location:	Buellton Recreation Center 301 Second St., Buellton Room A
Purpose:	Review update progress, discuss vulnerability assessment methodology, and finalize mitigation strategy		
Attendees:	Mitigation Advisory Committee Refer to scanned sign in sheet		

Refer to the accompanying PPT for discussion topics.

Key Points / Action Items

- Dewberry will double check the HAZUS total exposure value as presented in the draft of Section 6.
- Buellton noted the landslide boundary is likely referring to the mountains/river and is not accurate enough to reflect the lack of risk to Buellton. The City's Annex should note risk to landslide consistent with the City's general plan safety element.
- Wildland Urban Interface: Cal Fire Alliance has developed "communities at risk". Santa Maria is listed. County Fire has done a more localized assessment and will send Dewberry the list of communities County Fire identifies as being at risk. County Fire will send available mapping and a link to the fire plan currently being updated.
- Dewberry will follow up regarding what CWPPs are being developed to make sure all of them are mentioned in the HMP.
- The planning department noted that a planning tool has been created called "existing developed rural neighborhoods" which provides a policy for reducing wildfire risk to communities that qualify.
- Liquefaction/Shaking: Dewberry received shaking potential and liquefaction layers from CGS. These will be incorporated into the vulnerability assessment.
- Dave Rickard asked to be reminded to update the disaster event map showing where PWs have been completed.

- The County considered the STAPLE E criteria and prioritized the mitigation actions in the spreadsheet.
- Dewberry to follow up with each city to complete mitigation action prioritization through their local planning groups.
- The existing plan was not monitored, but the County was successful in completing mitigation actions through a series of disasters.
- For this plan, the County intends to organize an annual meeting of the MAC. The cities and the County will take that opportunity, annually, to discuss the plan at a city council/board of supervisors meeting. Dewberry will draft the plan maintenance section per this guidance and submit to the MAC for review and revision.
- Richard Abrams will send Dewberry an updated org chart to include in the County capabilities assessment.

**Santa Barbara County Operational Area
2011 Hazard Mitigation Plan Update
Meeting Log**

Agenda & Notes

Santa Barbara County

Date: November 15, 2010

Time: 3:00 pm

Attendees: Michael Harris, SB Co OES
Richard Abrams, SB Co OES
Paddy Langlands, General Services
Ray Aromatorio, Risk Manager, General Services

Discussion Topics:

- Critical Facilities for SB Co government
- County of SB Appraisal docs for building stock

Meeting Outcomes:

Ray provided the Alliant appraisal books for SB Co assets. Richard will review the documents and discuss with GS staff which buildings may be considered critical for government continuity. GS staff may include Paddy Langlands, Jack Williams, Ray Aromatorio, and others as needed. Ray will provide an electronic version of the valuation soon. Richard will research neighboring counties for determining similar critical facility information.

A list of critical facilities will be jointly developed by OES-GS, a valuation estimated and the data provided to GIS for shape file information to be developed.

**Santa Barbara County Operational Area
2011 Hazard Mitigation Plan Update
Meeting Log**

Agenda & Notes

Santa Barbara County

Date: November 17, 2010

Time: 3:00 pm

Attendees: Richard Abrams, SB Co OES
Jack Williams, General Services, Facilities

Discussion Topics:

-Critical Facilities for SB Co government

Meeting Outcomes:

Discussed critical county facilities and selected assets for the HMP
Richard will review the documents and discuss with GS staff which buildings may be considered critical for government continuity.

A list of critical facilities will be jointly developed by OES-GS, a valuation estimated and the data provided to GIS for shape file information to be developed.

**Santa Barbara County Operational Area
2011 Hazard Mitigation Plan Update
Meeting Log**

Agenda & Notes

Santa Barbara County

Date: December 7, 2010

Time: 11:00 am

Attendees: Richard Abrams, SB Co OES
Zacharias Hunt SBC GIS Manager

Discussion Topics:

Critical Facilities
Data submittals

Meeting Outcomes:

Discussed critical facilities and the selection of assets for the HMP
Incorporating data from Risk Mgmt Property Schedule to shape file map

**Santa Barbara County Operational Area
2011 Hazard Mitigation Plan Update
Meeting Log**

Agenda & Notes

Santa Barbara County

Date: December 16, 2010

Time: 10:00 am

Attendees: Richard Abrams, SB Co OES
Zacharias Hunt, SBC GIS Manager
Dave Rickard, PW Recovery Manager
Bill Tracy, PW Transportation
Mike Parker, PW Flood Control
Bob Tanner, SBC Fire

Discussion Topics:

Review Mitigation Action Status
Data submittals
Coordination with outside entities
New Project identification

Meeting Outcomes:

Mike Parker to provide CIP to Z. Hunt, and Dewberry
MP to provide DFIRM updates to Z Hunt
MP to follow up with John Frye for projects status
RA will provide Dewberry ftp site info to planning group
Bill T to address landslide and bridge issues
Bill T to provide Dewberry with new landslide projects
DR will follow up with Facilities regarding retrofit
DR to follow up with Parks
Bob Tanner will follow up with Z Hunt for updated fire maps (CalFire data)
BT will identify new projects as needed
ZH incorporating data from Risk Mgmt Property Schedule to shape file map

**Santa Barbara County Operational Area
2011 Hazard Mitigation Plan Update
Meeting Log**

Agenda & Notes

Date: March 24, 2011

Time: 12:00

Attendees:

**Mark Van de Kamp, Santa Maria
R. Abrams, SB Co OES**

Discussion Topics:

HMP survey and press release.

Meeting Outcomes:

SBC will provide PR to cities for distribution/ revised for their jurisdiction.

SM may post pdf version on city website or direct to the SBC website for survey.

Will work w/ Roy D. and Maria for distribution to Spanish lang community.

County Email Log

AUTHOR	DATE	TO	SUBJECT
R. Abrams	5/27/2011	Solvang	staff time acct
R. Abrams	5/27/2011	Carpinteria	crit facilities, staff time
R. Abrams	27-May	County	review Draft Sections
R. Abrams	25-May	Dewberry	2010 Census data
R. Abrams	25-May	MAC	review Draft Sections
R. Abrams	25-May	G. Tingos (AG Com)	Ag vulnerability
R. Abrams	24-May	Dewberry	SB Co Org Chart
R. Abrams	23-May	MAC	Meeting record and presentation
R. Abrams	12-May	MAC	Review County Exposure Analysis
R. Abrams	26-Apr	County	Dam inundation mapping
R. Abrams	19-Apr	MAC	Objective 1B land use language
R. Abrams	18-Apr	MAC	Objective 1B land use language
R. Abrams	12-Apr	Dewberry	crit facilities
R. Abrams	12-Apr	County	Mitigation Goals, actions
R. Abrams	5-Apr	Dewberry	SB Co climate change study
R. Abrams	17-Mar	Dewberry	COMB projects
R. Abrams	17-Mar	COMB	COMB projects
R. Abrams	10-Mar	MAC	Public survey questions
R. Aromatorio	11/30/2010	R. Abrams	SB Co Critical facilities
R. Aromatorio	12/7/2010	R. Abrams	SB Co Critical facilities
Z. Hunt	11/18/2010	R. Abrams	GIS mapping
Z. Hunt	12/6/2010	R. Abrams	GIS mapping
Z. Hunt	12/28/2010	R. Abrams	GIS mapping
J. Koegler (PHD)	9-Feb	R. Abrams	Medical facilities
J. Koegler (PHD)	26-Apr	R. Abrams	Medical facilities
T. Matlovsky	2-Mar	R. Abrams	GIS mapping
T. Matlovsky	26-Apr	R. Abrams	GIS mapping
T. Matlovsky	12-May	R. Abrams	GIS mapping
R. Tanner (Fire)	12/2/2010	R. Abrams	Fire history /threat
R. Tanner (Fire)	12/7/2010	R. Abrams	Fire history /threat
R. Tanner (Fire)	12/13/2010	R. Abrams	Mitigation Goals, actions
R. Tanner (Fire)	12/21/2010	R. Abrams	Mitigation Goals, actions
R. Tanner (Fire)	19-Jan	R. Abrams	Fire Safe Council
R. Tanner (Fire)	20-Apr	R. Abrams	Objective 1B land use language
R. Tanner (Fire)	20-Apr	R. Abrams	SB Co Critical facilities
R. Tanner (Fire)	25-Apr	R. Abrams	SB Co Critical facilities
R. Tanner (Fire)	23-May	R. Abrams	Communities at risk
R. Tanner (Fire)	26-May	R. Abrams	review Draft Sections
N. Eady (Planning)	18-Apr	R. Abrams	Objective 1B land use language
N. Eady (Planning)	19-Apr	R. Abrams	Objective 1B land use language
N. Eady (Planning)	20-Apr	R. Abrams	SB Co Critical facilities
N. Eady (Planning)	25-May	R. Abrams	review Draft Sections
R. Abrams	20-Apr	C. Thornton (Comm.)	Comm facilities
R. Abrams	11/4/2010	G. Tingos (AG Com)	HM Plan
G. Tingos (AG Com)	12/16/2010	R. Abrams	HM Plan
G. Tingos (AG Com)	12/20/2010	R. Abrams	HM Plan
G. Tingos (AG Com)	8-Feb	R. Abrams	Haz Ranking
G. Tingos (AG Com)	20-Apr	R. Abrams	SB Co Critical facilities
G. Tingos (AG Com)	25-May	R. Abrams	Ag vulnerability
B. Tracy (PW)	12/1/2010	R. Abrams	HM Plan
B. Tracy (PW)	12/8/2010	R. Abrams	Mitigation Goals, actions

County Email Log

B. Tracy (PW)	31-Jan	R. Abrams	GeoHaz Maps
B. Tracy (PW)	1-Feb	R. Abrams	Mitigation Goals, actions
B. Tracy (PW)	19-Apr	R. Abrams	Objective 1B land use language
B. Tracy (PW)	20-Apr	R. Abrams	SB Co Critical facilities
B. Tracy (PW)	12-May	R. Abrams	Exposure Analysis
B. Tracy (PW)	27-May	R. Abrams	review Draft Sections
R. Abrams	12/16/2010	J. Williams (Facilities)	SB Co Critical facilities
R. Abrams	28-Feb	R. Wilson (CGS)	GeoHaz Maps



P R E S S R E L E A S E

News Media Contact:

Richard Abrams, Emergency Manager
(805) 560-1081, or rabrums@countyofsb.org

FOR IMMEDIATE RELEASE

4 February 2011

Increasing Resiliency in Santa Barbara County

Is your home or office building susceptible to damage from earthquakes, wildfires, or floods? Do you want to help increase the likelihood that you can recover from disasters and prevent future damage from these and other natural hazards? Your participation can make our communities more resilient.

With a grant from the Federal Emergency Management Agency (FEMA), the Santa Barbara County Office of Emergency Services is leading a local effort to update the county's Hazard Mitigation Plan. This plan identifies natural hazards throughout Santa Barbara County. The plan includes all eight cities and presents an assessment of critical facilities vulnerable to these hazards. The plan lists potential actions needed to reduce risk and future damage.

Santa Barbara County OES welcomes citizen participation to ensure development of a strong mitigation strategy. In the near future, a public survey will be made available online, drafts of the plan will be posted for review, and ultimately the plan will be presented to the Board of Supervisors and all eight city councils. Please send an email to cbartshire@dewberry.com if you wish to be notified of these opportunities to participate.

Although the plan enables the County and cities to be eligible for various assistance grants, the plan's value really lies in the identification of hazards and helps emergency managers and residents better prepare for disasters. The current hazard mitigation plan is available online at OES' web site: <http://countyofsb.org/ceo/oes>.

OES' "Mitigation Advisory Committee" is working with local planning teams at the County and in each city to review recent events such as wildfires and floods, and mitigation projects that have been completed or are in progress based on the current plan, and compile documentation regarding local government capabilities to continue implementing mitigation strategies. Dewberry consulting has been hired to update the risk assessment for the identified hazards and coordinate the development of the complete plan update. The Mitigation Advisory Committee will convene again in March 2011 to review the updated risk assessment and mitigation progress. At this time, new mitigation actions will be proposed and public input will be solicited.

OES, working with the city representatives, identified the following natural hazards for evaluation in the updated plan:

- Flooding (including coastal surge)
- Earthquake
- Dam Failure
- Agricultural Pests and Diseases
- Wildfire
- Landslide / Coastal Erosion
- Tsunami

This plan update is being coordinated by the Santa Barbara County Office of Emergency Services. Please direct questions or comments to Richard Abrams at rabrums@countyofsb.org or 805.560.1081.

###



Increasing Resiliency in Santa Barbara County

Tuesday, February 8, 2011

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- o Dam Failure
- o Tsunami
- o Agricultural Pests and Diseases

This plan update is being coordinated by the Santa Barbara County Office of Emergency Services. Please direct questions or comments to Richard Abrams at rabrums@countyofsb.org or 805-560-1081

PLAN:

Continued from page B1

requested, he said. Those interested in sharing ideas or concerns can attend community meetings or call the Office of Emergency Services. Officials will even make house calls for those who are disabled and unable to come to a meeting but want to speak in person, according to Rickard.

"County officials can't possibly know as much as people within a certain area know," he said, giving an example that residents might know nearby culverts are too small for proper drainage.

Michael Harris, emergency operations chief, said the Office of Emergency Services wants to ensure people understand the risks of natural disasters.

"We don't want to sit up in our ivory towers and pretend we know everything," he said. "Government's supposed to be transparent."

The following natural disasters will be evaluated in the updated plan: flooding (including coastal surge), dam failure, earthquakes, wildfire, landslides and coastal erosion, tsunamis and agricultural pests and diseases.

"Flooding's always a big deal," said Harris, noting that 75 percent of all disasters are weather-related.

After a fire scorches vegetation, there is an increased risk of flooding when rains hit, and firefighters respond quickly to build the soil back up and prevent erosion.

Following recent fires, "we spent of a lot of money doing hydromulching on the South

County," Harris said.

Jon Frye, interim deputy public works director, said the Hazard Mitigation Plan update will not have much effect on how the county Flood Control and Water Conservation District conducts business.

"We don't have any strikingly new issues that we're going to insert into the updated plan that isn't already in the existing plan," he said. "We think we're in pretty good shape."

He said the agency continually gets input from the public, adding that hearing from the community regarding the plan update will be beneficial.

"It's always helpful to keep an open ear to what others may think could be helpful," Frye said.

Rickard said natural hazards range from water wearing away the foundation of a bridge to too many trees close to power lines.

"It's a huge variety. Imagine if we had the luxury of mitigating everything. Of course, it's a huge, almost monumental task."

In the near future, a public survey concerning the Hazard Mitigation Plan will be accessible online, and drafts of the plan will be posted for review.

Those who want to be notified of opportunities for participation should send an e-mail to cbartshire@dewberry.com.

The current Hazard Mitigation Plan can be viewed online at: <http://countyofsb.org/ceo/oes>.

Questions or comments regarding the plan update can be directed to Richard Abrams at: 560-1081 or rabrams@countyofsb.org

Input sought on Hazard Mitigation Plan

Routine process happens every 5 years

By SAMANTHA YALE SCROGGIN
STAFF WRITER
sscroggin@santamariatimes.com

Nobody knows more about potential safety problem spots in Santa Barbara County than the residents who live near them — those, for example, who see where flooding happens or where the foundation of a bridge is wearing away.

With this knowledge, the Santa Barbara County Office of Emergency Services is seeking public input as it heads up the task of updating the county's Hazard Mitigation Plan, a routine process that happens about every five years.

The plan identifies natural hazards throughout the county, and includes an assessment of critical facilities vulnerable to these hazards. The plan also lists actions potentially necessary to reduce risk and future damage.

A roughly \$58,000 grant from the Federal Emergency Management Agency (FEMA) is funding the upcoming revisions to the plan.

Dave Rickard, disaster recovery manager for the county, said considering the advice of the community while updating the plan is "extremely important."

"It's a federal requirement that the public be notified and their input be



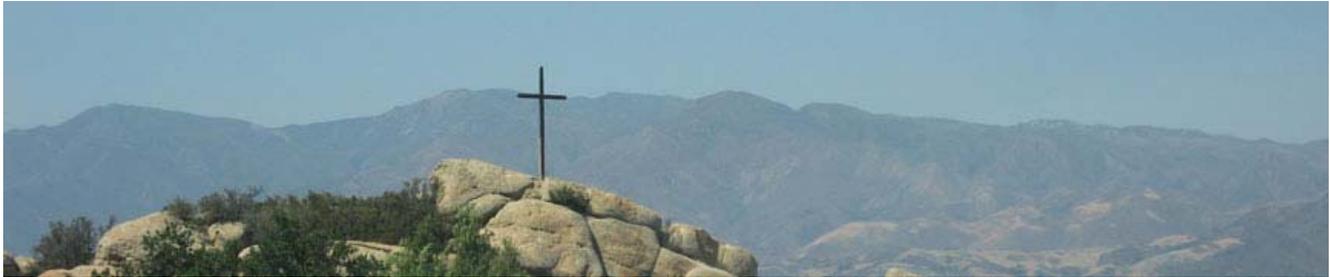
CENTRAL COAST

Sunday
Business
Wireless advances
could bring end to
cell towers B3

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Wildland Residents Association, Inc.
Serving the Santa Barbara Mountain Community Since 1982



Community Alert – Not If, But When Disaster Strikes



Community Alert airs on Tuesday, 11 AM and 9 PM and again on Saturday at 1 PM on KZSB-AM 1290 and on www.newspress.com. Click on the dates below to hear the show for that day. *Community Alert* is the property of the Wildland Residents Association, Inc., San Marcos Pass Volunteer Fire Department. The use of these links is for personal use only. Commercial use of these programs or content is prohibited without prior written permission from the WRA.

Fire Department News Network video about the Community Alert show [here](#).

[March 8, 2011](#)

Emergency Services Managers Richard Abrams, Santa Barbara County and Yolanda McGlinchey, Santa Barbara City talk about the updates of the Hazard Mitigation Plans for Santa Barbara County.

[March 1, 2011](#)

Carpinteria/Summerland Fire Protection District Public Information Officer Charlie Johnson sits in for Mike and covers the status of public information on the South Coast.

[February 22, 2011](#)

Santa Barbara Firefighters Alliance President Bob Niehaus talks about the Alliance and their recent donations to local fire departments. [Website](#)

[February 15, 2011](#)

Associate Vice Chancellor Ron Cortez and Emergency Preparedness Manager Jim Caesar talk about emergency planning at UCSB and Isla Vista. [Website](#)

[February 8, 2011](#)

Dr. Scott McCann, Director of Health Education, Santa Barbara County Public Health Department talks about the leading causes of non-medical causes of death within the county.

[February 1, 2011](#)

Local Santa Barbara writer and CPA Terry Tyler talks about various community issues.

[January 25, 2011](#)

Santa Barbara City Councilman Frank Hotchkiss talks about various community issues.

[January 18, 2011](#)

Equine Evac Joe Clancy joins Community Alert to talk about upcoming projects and volunteer recruitment.

[January 11, 2011](#)

Former California State Fire Marshal Ronny Coleman joins Community Alert to talk about the California volunteer fire service and the California State Firefighters' Association Volunteer Committee. [Website](#)

January 4, 2011

Ted and Mike welcome in the new year reporting on past and future events.

[December 28, 2010](#)

Nancy Callahan joins Community Alert to talk about the Wildlife Information Literature Data & Education Service (WILD) and the various services they provide. [Website](#)

[December 21, 2010](#)

Sheriff's Department Chaplain Father Jon joins Community Alert.

[December 14, 2010](#)

Casa Esperanza Executive Director Michael Foley joins Community Alert to talk about local homeless issues. [Website](#)



Santa Barbara County
County Executive Office/Office of Emergency Services
105 East Anapamu Street, Suite 3 • Santa Barbara, CA 93101
(805) 560-1081 • FAX (805) 560-1032
www.countyofsb.org/ceo/oes

P R E S S R E L E A S E

News Media Contact:

Richard Abrams, Emergency Manager
(805) 560-1081, or rabrams@countyofsb.org

FOR IMMEDIATE RELEASE

March 28, 2011

Local Officials Seek Public Input to Make County Safer

The Santa Barbara County Multi-Jurisdiction Hazard Mitigation Plan is a countywide plan that identifies risks and ways to minimize damage from natural and manmade disasters. The plan is a comprehensive resource document that serves to enhance public awareness, create a decision tool for policy makers, promote compliance with State and Federal program requirements, enhance local policies for risk reduction capabilities, and provide coordination between the cities and the County.

The Federal Disaster Mitigation Act of 2000 requires all local governments to create such a disaster plan in order to qualify for federal mitigation funding in the future.

2011 Revision and Public Input: After five years the plan is in need of revision. Many of the mitigation actions outlined in the plan have been completed, while others have been deferred due to issues beyond our control. County OES is coordinating the plan update through collaboration with the Mitigation Advisory Committee (MAC). The MAC is updating the mitigation strategies and reviewing the hazards that could impact the region, in order to improve the Santa Barbara County Operational Area's capabilities to respond to and recover from natural and man-made disasters.

We need public input regarding the threats facing our region and actions we can take to reduce the impact of future hazard events.

We have provided an online survey on the SB County OES webpage, www.countyofsb.org/ceo/oes to collect your input on the following kinds of questions:

1. How would **you** prioritize the hazards facing Santa Barbara?
2. What **actions** can we take to reduce future damage?
3. How can local government officials better **communicate** risk to the public?
4. What **additions** would you suggest that do not currently exist in the plan?

Paper copies of the survey are available at the County Clerk of the Board Office and the Planning and Development Zoning counter.

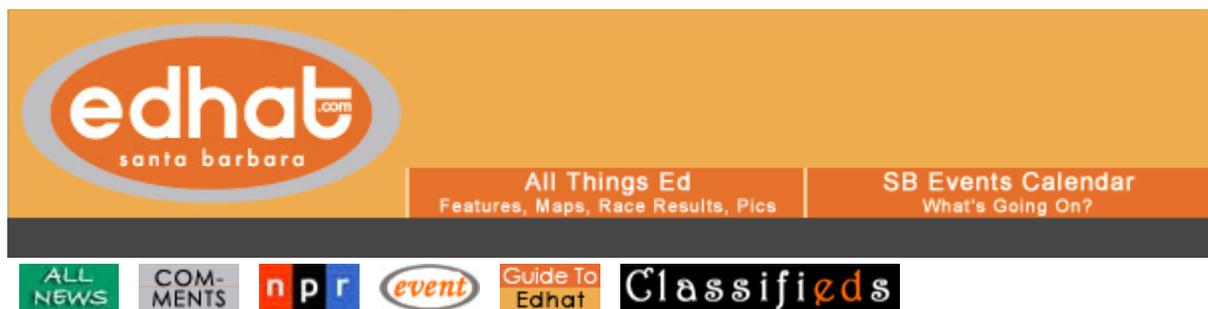
The survey is also available on **your own city's website**.

Your comments will be reviewed by the Mitigation Advisory Committee and incorporated into the final plan as appropriate. A review draft of the complete plan update will be made available for public review. Please indicate in your survey response if you are interested in being contacted regarding this review opportunity.

Your input is crucial to creating a more resilient community.

The survey closes April 30, 2011.

###



Public Input Regarding Safety

updated: Mar 28, 2011, 2:32 PM

Source: Office of Emergency Services

Local Officials Seek Public Input to Make County Safer

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11 comments on this article. [Read/Add](#)

* * *

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##



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Billy Goodnick - Landscape Design Coach

New Service! If the plants in your yard look like they've seen better days, Billy Goodnick's "Design Blitz" service provides professional planting design ideas, discounts on plant material and personalized shopping to create just the look you want. It's fun, fast and sustainable.

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Subscriber Comments for Public Input Regarding Safety

Comments in order of when they were received | (reverse order)

COMMENT 158591 2011-03-28 03:06 PM
 Strategy #1: Immediately close Diablo Canyon nuclear power plant. The end.

COMMENT 158596P 2011-03-28 03:16 PM
 Get rid of the gangs and homeless. They are a bigger problem than nuclear energy.

THE HIGHLANDER 2011-03-28 03:19 PM
 MY INPUT: County OES needs to stop waiting until a horrible disaster strikes to START assessing the threats that face our region.

We live in an EARTHQUAKE zone, we are an OCEANFRONT city vulnerable to a tsunami, we live LESS THAN 200 MILES away from 2 nuclear power stations, and we are HIGHLY SUSCEPTIBLE to wildfires and mudslides. Why don't we already have a COMPREHENSIVE plan for each???? Who is running the show there??

COMMENT 158606 2011-03-28 03:25 PM
 There has to be a radio station that one can turn to in order to get up to date information. I can't think of how many times in the past 40 years that I've lived here that I found out/got more information from radio and television stations hundreds of mile away. My sister and mother live in Colorado and they know more about what's going on here that our local stations!

COMMENT 158618 2011-03-28 03:42 PM
 606, try KZSB 1290 AM for emergency news. They're the last, all local news and talk radio station in town and they did a very good job of coverage during our last big fire.

COMMENT 158634 2011-03-28 04:20 PM
 Can someone provide the link for the actual survey?

COMMENT 158657P 2011-03-28 05:33 PM
 It seems to me that the biggest danger is from bureaucrats with too much time and (our) money on their hands, trying to create committees and paperwork, rather than common sense guidelines...

COMMENT 158699 2011-03-28 06:39 PM
 How about working to stop the funding of Al Qaeda and other terrorist groups worldwide so they don't have the ability to attack us! Oops..forgot, got to keep that war machine rolling on...Thanks Bush AND Obama!!

COMMENT 158707P 2011-03-28 06:50 PM
 The KEYT website has the link.

COMMENT 158795 2011-03-29 07:51 AM
 Diablo Canyon Nuclear plant #!. We are in the radiation zone if the wind is wrong. A nuclear disaster would distroy people, property, our seas as well. It should have never been built. As hard as the locals organized against it, the powers in Sacramento would not listen to the real fault dangers.

Warning sirens with 2 tones: 1 ton to warn of fires. Another tone to warn of tsunami. During the tea fire, the foothill residents could have been warned by a siren. Neighbor told neighbor, or called other locals. Because there was no sien, our friends had only 3 minutes to move out 5 people and 2 dogs. Enforce seasonal weeding laws. Have air support agreements established.

Our local information is abysmal. We need local, fast, updated communication. Keeping debris out of sewers, creeks, so rain doesn't turn into floods. Sounds simple, but has a huge impact.



Massage Envy



Museum of Natural History



Speaking of Stories



American Riviera Bank



Earth Day



Invisible Fence



now at 410 E. Haley



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Emergency Services

About the Santa Barbara County Emergency Services

Office

The Santa Barbara County Office of Emergency Services (SBC OES) is a department within the County Executive Office, and is responsible for emergency planning coordination for the Santa Barbara Operational Area.

Stay Updated With Santa Barbara County OES Links



We want your input!

Participate in the Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan by completing the survey below:

[Hazard Mitigation Plan Survey - English](#)

[Hazard Mitigation Plan Survey - Spanish](#)

Read the current

[Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan Draft](#)

March 17, 2011 Link Update:

[Santa Barbara County Tsunami Inundation Maps](#)

Santa Barbara Operational Area

On a day to day basis, OES is responsible for emergency planning and coordinating Area entities which include:

Cities: Buellton, Carpinteria, Goleta, Guadalupe, Lompoc, Santa Barbara, San

Special Districts: Air Pollution Control District, Fire Districts, Sanitary District and Water Districts

Volunteer Organizations: American Red Cross, Amateur Radio Emergency : Montecito Emergency Response & Recovery Action Group (MERRAG), Volunteer

Industry Groups: CAER-Community Awareness and Emergency Response, P Santa Barbara Industrial Association.

Tri-County Coordination: Santa Barbara County OES also coordinates with Ventura and San Luis Obispo Counties. The Tri-County Coordinators meet and throughout the year.

SBC OES Responsibilities

Maintain the Santa Barbara County Operational Area Multihazard Functional Plan

1. Maintain the County Emergency Operations Center (EOC) in a state
2. Maintain a trained cadre of EOC team members.
3. Provide ongoing leadership and coordinate disaster plans and exercises County.
4. Assist County departments in developing department emergency plans during disasters.
5. Assist County departments with development of facility emergency
6. Provide ongoing training for County department emergency coordinators
7. Participate in an ever-expanding public education campaign for all Hazards Program (ESP), public venues and various media presentations.

Contact SBC OES

Santa Barbara County Office of Emergency Services

105 East Anapamu Street, Suite 3
Santa Barbara, CA 93101
805-560-1081
805-560-1032 - fax

oes_admin@countyofsb.org

Emergency Operations Chief

Michael Harris (805) 560-1081
oes_admin@countyofsb.org

Emergency Manager, All-Risk - Planning

Richard Abrams (805) 560-1040
rabrums@countyofsb.org

Emergency Manager, All-Risk - Homeland Security

Joe Guzzardi (805) 560-1083
jguzzardi@countyofsb.org

Emergency Manager, All-Risk - Oil & Gas

Elsa Arndt (805) 560-1041

earndt@countyofsb.org

Emergency Manager, All Risk - Training & Nuclear

Jay McAmis (805) 560-1042

jmcamis@countyofsb.org

Emergency Manager, All Risk - Oil & Gas North County

David Flamm (805) 560-1098

dflamm@countyofsb.org

Administrative Assistant

Erika Isaly (805) 560-1081

eisaly@countyofsb.org

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Bartshire, Corinne

From: Abrams, Richard [rabrams@countyofsb.org]
Sent: Tuesday, March 22, 2011 4:32 PM
To: Geri Simmons-Ventura; 'Roy Dugger'; 'Fry, Craig'; Abrams, Richard; Adomaitis, V; Beltranena, Juan; Claudia Dato; Clementi, Paul; Dave Durlinger; Rickard, Dave; Eady, Nathan; Fayram, Tom; Greg Nordyke; Jack Owen ; James.Caesar; Jeff Jones; jeri.siegel@calema.ca.gov; Kristin McGuire; Marc Bierdzinski; Mark Van De Kamp; Mary Ellen Rio ; McGlinchey, Y; Parker, Mike; Regan Candalario; Abrams, Richard; Rickard, Dave; Kovach, R; Tanner, Robert; Tracy, Bill; Ubaldo, Alex
Cc: Abrams, Richard; Isaly, Erika; Bartshire, Corinne
Subject: FW: Santa Barbara County LHMP Public Survey: Ready for Dissemination
Attachments: HMPSurvey_English_ForPrint_03212011.doc; HMPSurvey_Spanish_ForPrint_03212011.doc

We have successfully tested the survey links from the OES website and the OES Facebook website. We are printing hard copies of the English and Spanish versions of the surveys and will have them available at selected locations.

We recommend you post the information on your jurisdiction or agency website as appropriate. Thank you for your input and efforts.

Regards;

Richard Abrams, CEM
Emergency Manager
Office of Emergency Services
105 E. Anapamu St. Suite 3
Santa Barbara, CA 93101
805.560.1081 ext.1040
rabrams@countyofsb.org

Mitigation Advisory Committee members,

Per our discussion at the last MAC meeting (March 2, 2011), we have prepared a public survey in both English and Spanish available online and in printable format. The purpose of this survey is to gather input from residents and workers within Santa Barbara County regarding their perception of hazard risk and what they may or may not be doing about it. It is a requirement of the mitigation planning process to reach out to the public. This is your opportunity, as a participating city, to meet that requirement.

County OES will be posting these survey links on their website and likely issuing a press release. As Members of this committee and participating jurisdictions, **I urge you to distribute these online links to your colleagues, friends, and family that reside or work in Santa Barbara County.**

I have attached the printable Word documents. If your city or County department would like to print these surveys and make them available at a public counter, you are encouraged to do so. Please change the highlighted portion to include your local point of contact and address where the survey should be returned. Please collect the surveys in your jurisdiction/department and give them to Richard Abrams. When we close the comment period, he can give all of the surveys to me.

You may use the introductory text in the attached word documents as **email text for distribution** to community participants (CERT, volunteer organizations, Home Owners Associations, etc). I encourage you to email these links to as many individuals in Santa Barbara County as you can. This may include all of the city staff within your jurisdiction.

If you would like support drafting emails, or distributing to email lists, please let me know. Please include me on emails and letters that you distribute so that we may record the outreach effort in the plan.

You are also welcome to post the survey links on your city or department website. Here are the links:

http://www.surveymonkey.com/s/SantaBarbaraCounty_LHMP2011_English

http://www.surveymonkey.com/s/SantaBarbaraCounty_LHMP2011_Spanish

Please do not hesitate to contact me with any questions.

Sincerely,
Corinne

Corinne Bartshire, AICP, CFM
Hazard Mitigation Planner
Dewberry
1410 Rocky Ridge Road, Suite 305
Roseville, CA 95661
cbartshire@dewberry.com
415.295.7116 (office) **New Phone Number!**
805.441.5591 (mobile)
916-380-3750 (fax)
www.dewberry.com

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Bartshire, Corinne

From: Isaly, Erika [eisaly@countyofsb.org]
Sent: Tuesday, March 22, 2011 4:25 PM
To: Bartshire, Corinne
Subject: Survey Information Posted

Hello Corinne!

Just an FYI... I have placed information pertaining to the survey on our main OES webpage and on our SB OES Facebook page which I'll link here.

I'm also getting our Repro department to print 100 copies each of the English and Spanish surveys for placement at our Clerk of the Board counter and Planning & Development counter.

Let me know how else I can help with this!

Erika L. Isaly

Erika Isaly
Administrative Assistant
Office of Emergency Services
County of Santa Barbara
105 E. Anapamu St. Suite 3
Santa Barbara, CA 93101
805-560-1081
805-560-1032 - fax
eisaly@countyofsb.org



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(805) 560-1081 • FAX (805) 560-1032
www.countyofsb.org/ceo/oes

21 March 2011

Santa Barbara County Hazard Mitigation Plan **Public Survey**

County OES Contact:

Richard Abrams, Emergency Manager
(805) 560-1081, or rabrams@countyofsb.org

Dewberry Contact:

Corinne Bartshire, Planning Consultant
(415) 295-7116, or cbartshire@dewberry.com

City of XXX Contact:

Name, Title

**Address where hard copy surveys are available and should be turned in
Phone, e-mail address**

Dear Community Member,

Is your home or office building susceptible to damage from earthquakes, wildfires, or floods? Do you want to recover more quickly from disasters and prevent future damage from these and other natural hazards? Your participation can make our communities more resilient. We know you are busy and respectfully request a few moments of your time to respond to the brief survey below.

With a grant from the Federal Emergency Management Agency (FEMA), the Santa Barbara County Office of Emergency Services is leading a local effort to update the county's Hazard Mitigation Plan. This plan identifies natural hazards throughout Santa Barbara County. The plan includes all eight cities and presents an assessment of critical facilities vulnerable to these hazards. The plan lists potential actions needed to reduce risk and future damage.

Although the plan enables the County and cities to be eligible for various assistance grants, the plan's value really lies in the identification of hazards and helps emergency managers and residents better prepare for disasters. The current hazard mitigation plan is available online at OES' web site: <http://countyofsb.org/ceo/oes>.

Your responses to this survey will inform the plan update. This survey is also available online in both English and Spanish at <http://countyofsb.org/ceo/oes>. Thank you for your time and cooperation.

1.	Please mark the jurisdiction in which you live.																				
	<p>Santa Barbara County Jurisdictions:</p> <table border="0"> <tr> <td><input type="checkbox"/> Buellton</td> <td><input type="checkbox"/> Santa Barbara City</td> </tr> <tr> <td><input type="checkbox"/> Carpinteria</td> <td><input type="checkbox"/> Santa Maria</td> </tr> <tr> <td><input type="checkbox"/> Goleta</td> <td><input type="checkbox"/> Solvang</td> </tr> <tr> <td><input type="checkbox"/> Guadalupe</td> <td><input type="checkbox"/> Unincorporated Santa Barbara County</td> </tr> <tr> <td><input type="checkbox"/> Lompoc</td> <td></td> </tr> </table>	<input type="checkbox"/> Buellton	<input type="checkbox"/> Santa Barbara City	<input type="checkbox"/> Carpinteria	<input type="checkbox"/> Santa Maria	<input type="checkbox"/> Goleta	<input type="checkbox"/> Solvang	<input type="checkbox"/> Guadalupe	<input type="checkbox"/> Unincorporated Santa Barbara County	<input type="checkbox"/> Lompoc											
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<input type="checkbox"/> Lompoc																					
2.	What is the ZIP code of your home?																				

3.	The Mitigation Advisory Committee identified the following hazards as having a potential to impact Santa Barbara County. Please mark the THREE (3) hazards that are of most concern to your neighborhood or home.																				
	<table border="0"> <tr> <td><input type="checkbox"/> Agriculture (pests and disease)</td> <td><input type="checkbox"/> Landslide/Coastal Erosion</td> </tr> <tr> <td><input type="checkbox"/> Dam Failure</td> <td><input type="checkbox"/> Tsunami</td> </tr> <tr> <td><input type="checkbox"/> Earthquake</td> <td><input type="checkbox"/> Wildfire</td> </tr> <tr> <td><input type="checkbox"/> Flooding (including coastal surge)</td> <td></td> </tr> </table> <p>Please list any additional hazards that present a threat to your neighborhood or home.</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> Agriculture (pests and disease)	<input type="checkbox"/> Landslide/Coastal Erosion	<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Tsunami	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Flooding (including coastal surge)													
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<input type="checkbox"/> Earthquake	<input type="checkbox"/> Wildfire																				
<input type="checkbox"/> Flooding (including coastal surge)																					
4.	What are you doing on your property or within your home to reduce future damage from the identified hazards in Question #3? (choose all that apply)																				
	<ul style="list-style-type: none"> <input type="checkbox"/> Seismic retrofit of the structure and / or foundation <input type="checkbox"/> House elevation or first floor modification to prevent flood damage <input type="checkbox"/> Installed backflow prevention device(s) <input type="checkbox"/> Defensible space landscaping (clear vegetation around house to reduce wildfire risk) <input type="checkbox"/> Roof retrofit using fire resistant material <input type="checkbox"/> Installation of fire sprinklers <input type="checkbox"/> Installation of fire hydrant or above ground water storage tank <input type="checkbox"/> Strengthened openings (Doors, windows, and/or garage door to reduce high-hazard wind risk) <p>Other (please specify):</p> <p>_____</p> <p>_____</p>																				
5.	If a severe hazard event occurred today (large earthquake or dam failure) such that all services were cut off from your home (power, gas, water, sewer) and you were unable to leave or access a store for 72 hours, which of these items do you have readily available?																				
	<table border="0"> <tr> <td><input type="checkbox"/> Potable Water (3 gallons per person)</td> <td><input type="checkbox"/> Extra Clothes and Shoes</td> </tr> <tr> <td><input type="checkbox"/> Cooking and eating utensils</td> <td><input type="checkbox"/> Blanket(s)/ Sleeping Bag(s)</td> </tr> <tr> <td><input type="checkbox"/> Can Opener</td> <td><input type="checkbox"/> Cash</td> </tr> <tr> <td><input type="checkbox"/> Canned / Non-perishable Foods (ready to eat)</td> <td><input type="checkbox"/> Flashlight (with batteries)</td> </tr> <tr> <td><input type="checkbox"/> Gas grill / Camping stove</td> <td><input type="checkbox"/> Gasoline</td> </tr> <tr> <td><input type="checkbox"/> Extra Medications</td> <td><input type="checkbox"/> Telephone (with batteries)</td> </tr> <tr> <td><input type="checkbox"/> First Aid Kit/Supplies</td> <td><input type="checkbox"/> Pet Supplies</td> </tr> <tr> <td><input type="checkbox"/> Portable AM/FM Radio (solar powered, hand crank, or batteries)</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Handheld "Walkie-Talkie" Radios (with batteries)</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Important Family Photos/Documentation in a water and fire proof container</td> <td></td> </tr> </table> <p>What else do you have in your emergency kit?</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> Potable Water (3 gallons per person)	<input type="checkbox"/> Extra Clothes and Shoes	<input type="checkbox"/> Cooking and eating utensils	<input type="checkbox"/> Blanket(s)/ Sleeping Bag(s)	<input type="checkbox"/> Can Opener	<input type="checkbox"/> Cash	<input type="checkbox"/> Canned / Non-perishable Foods (ready to eat)	<input type="checkbox"/> Flashlight (with batteries)	<input type="checkbox"/> Gas grill / Camping stove	<input type="checkbox"/> Gasoline	<input type="checkbox"/> Extra Medications	<input type="checkbox"/> Telephone (with batteries)	<input type="checkbox"/> First Aid Kit/Supplies	<input type="checkbox"/> Pet Supplies	<input type="checkbox"/> Portable AM/FM Radio (solar powered, hand crank, or batteries)		<input type="checkbox"/> Handheld "Walkie-Talkie" Radios (with batteries)		<input type="checkbox"/> Important Family Photos/Documentation in a water and fire proof container	
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<input type="checkbox"/> Important Family Photos/Documentation in a water and fire proof container																					
<p>For more information on preparing an emergency kit, please visit: http://www.ready.gov/america/getakit/index.html</p>																					

6.	Do you have a plan for evacuating large animals and/or pets? (please select all that apply)
	<input type="checkbox"/> Yes, I have a plan for evacuating my pets (cats, dogs, etc). <input type="checkbox"/> Yes, I have a plan for evacuating my large animals (horses, cows, etc). <input type="checkbox"/> No, I have pets but have not planned for their evacuation. <input type="checkbox"/> No, I have large animals but have not planned for their evacuation. <input type="checkbox"/> Not Applicable, I have no large animals or pets
7.	Are you familiar with the special needs of your neighbors in the event of a disaster situation (special needs may include limited mobility, severe medical conditions, memory impairments, etc)?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
8.	Are you a trained member of your Community Emergency Response Team (CERT)? (Note: your community may use a different name than CERT)
	<input type="checkbox"/> Yes <input type="checkbox"/> No, I would like to learn more about CERT. <input type="checkbox"/> No, I am not interested in being a trained CERT member. <p style="text-align: center;"><i>For more information about CERT, please visit: www.citizencorps.gov/cert. Please share with us why you are a trained CERT member or why you are not yet part of CERT.</i></p> <hr/> <hr/>
9.	What are the most important things local government can do to help communities be more prepared for a disaster? (choose all that apply)
	<input type="checkbox"/> Disseminate effective emergency notifications and communication <input type="checkbox"/> Provide training and education to residents and business owners on how they can reduce future damage <input type="checkbox"/> Community outreach regarding emergency preparedness <input type="checkbox"/> Being aware of special needs and vulnerable populations <input type="checkbox"/> Make a plan to use volunteer residents to help in a disaster Other (please specify): <hr/> <hr/>
10.	Do you live in an apartment building or home with living space above a garage or parking area?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
11.	If yes, please describe your level of concern for the building to collapse in a large earthquake event.
	<input type="checkbox"/> Extremely Concerned <input type="checkbox"/> Little <input type="checkbox"/> High <input type="checkbox"/> No Concern, I feel safe in my home. <input type="checkbox"/> Moderate <input type="checkbox"/> Not Applicable
12.	If you are a homeowner, do you have adequate basic homeowners insurance to cover the hazards that could impact your home?
	<input type="checkbox"/> Yes, my insurance coverage should be adequate <input type="checkbox"/> No, I don't believe my insurance coverage would be adequate for a major disaster <input type="checkbox"/> Unsure <input type="checkbox"/> I do not have an insurance policy <input type="checkbox"/> Not applicable, I rent my current residence
13.	If you rent your residence, do you have renter's insurance?
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable, I own my residence

14.	Do you have earthquake insurance for your home?
	<input type="checkbox"/> Yes, I own my home and have earthquake insurance. <input type="checkbox"/> Yes, I rent my home and have earthquake insurance. <input type="checkbox"/> No, but I am interested in reviewing earthquake insurance options (http://www.earthquakeauthority.com/). <input type="checkbox"/> No, earthquake insurance is too expensive. <input type="checkbox"/> No, I do not need earthquake insurance.
15.	Do you have flood insurance for your home?
	<input type="checkbox"/> Yes, I own my home and have flood insurance. <input type="checkbox"/> Yes, I rent my home and have flood insurance. <input type="checkbox"/> No, but I am interested in reviewing flood insurance options (http://www.floodsmart.gov/floodsmart/). <input type="checkbox"/> No, I do not need flood insurance.
16.	Please note any additional insurance you have for your home or property.
	<hr/> <hr/>
17.	Do you work in Santa Barbara County?
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, please provide your workplace zip code. _____
18.	Is your place of work in an area susceptible to natural hazards? (select all that apply)
	<input type="checkbox"/> High-risk flood zone <input type="checkbox"/> Landslide Risk Area <input type="checkbox"/> Earthquake fault zone <input type="checkbox"/> Wildland Urban Interface (wildfire risk area) <input type="checkbox"/> Liquefaction zone <input type="checkbox"/> I don't know Other (please specify): <hr/> <hr/>
19.	Does your employer have a plan for disaster recovery in place?
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I don't know
20.	Does your employer have a workforce communications plan to implement following a disaster so they may contact you?
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I don't know
21.	Please list any studies you are aware of conducted within your community or the county regarding the risk to future hazard events (i.e. unreinforced masonry or soft story building inventories, dam inundation analyses, etc.)
	<hr/> <hr/>
22.	What recommendations do you have for Santa Barbara County and the incorporated cities to improve identification, prioritization, and implementation of actions intended to reduce future damage and increase resiliency (i.e., retrofit infrastructure, upgrade building codes)?
	<input type="checkbox"/> Perform outreach to ensure people are aware of their environment and the inherent risks <input type="checkbox"/> Provide training and materials on how residents can be prepared for the identified risks <input type="checkbox"/> Enforce/update building codes Other (please specify): <hr/> <hr/>

23.	Please recommend any companies or local associations that should be involved in the Santa Barbara County hazard mitigation planning process.
	<p>#1 Company/Association Name: _____ Contact Name: _____ Contact Email: _____ Contact Phone Number: _____</p> <p>#2 Company/Association Name: _____ Contact Name: _____ Contact Email: _____ Contact Phone Number: _____</p>
24.	<p>Would you like to review and comment on a draft of your jurisdiction's annex to the Multi-Jurisdictional Multi-Hazard Mitigation Plan?</p> <p><input type="checkbox"/> Yes, please notify me using my contact information in the next question. <input type="checkbox"/> No</p>
25.	<p>Please provide your name and email address in order to be notified of future opportunities to participate in hazard mitigation and resiliency planning. If you do not have an email address, please provide your mailing address.</p> <p>Full Name: _____ E-Mail Address: _____ Street Address: _____ City, State and Zip: _____ Jurisdictions of Interest: _____</p>
26.	<p>Please provide us with any additional comments/suggestions/questions that you have regarding your risk to future hazard events.</p> <p>_____ _____ _____</p>

Thank you for taking the time to complete this survey. If you have any questions regarding this survey you may contact Corinne Bartshire at cbartshire@dewberry.com or 415.295.7116.



9 March 2011

Plan de Mitigación de Riesgo del Condado de Santa Bárbara

Encuesta Pública

Contacto en la oficina de OES

Richard Abrams, Emergency Manager
(805) 560-1081, or rabrams@countyofsb.org

Contacto en Dewberry

Corinne Bartshire, Planning Consultant
(415) 295-7116, or cbartshire@dewberry.com

Ciudad de XXX Contacto:

Nombre, Título

¿Dónde se encuentran disponibles las encuestas y dónde se deben entregar?

Teléfono y dirección electrónica

Estimado Miembro de la Comunidad,

¿Son susceptibles su hogar o edificio de oficinas a daños causados por terremotos, fuegos o inundaciones? ¿Quiere recuperarse más rápidamente de un desastre y prevenir daños causados por esos y otros riesgos naturales? Su participación puede hacer nuestras comunidades más resistentes a estos riesgos. Sabemos que usted está ocupado, y por ello, respetuosamente solicitamos unos minutos de su valioso tiempo para llenar esta breve encuesta.

Con una donación de la Agencia Federal de Manejo de Emergencias (FEMA), la Oficina de Servicios de Emergencias del condado está llevando a cabo una actualización del Plan de Mitigación de Riesgos (HMP). Este plan identifica los riesgos naturales en todo el Condado de Santa Bárbara. El plan incluye a las ocho ciudades del condado y presenta una evaluación de las instalaciones críticas vulnerables a estos riesgos. El plan lista las acciones potenciales que son necesarias para reducir el riesgo y los daños futuros.

Aunque el plan permite que el Condado y las ciudades sean elegibles para donaciones de asistencia, el valor del plan radica en la identificación de los riesgos, y ayuda a los residentes y encargados del manejo de las emergencias a prepararse mejor para los desastres naturales. El plan de mitigación actual está disponible en el Web site de OES: <http://countyofsb.org/ceo/oes>.

Sus respuestas a este cuestionario (encuesta) informarán la actualización del plan. Esta encuesta está disponible en línea en Inglés y español en <http://countyofsb.org/ceo/oes>. Gracias por su tiempo y su cooperación.

1.	<p>Por favor marque la jurisdicción donde usted vive.</p>																				
	<p>Jurisdicciones en el Condado de Santa Bárbara:</p> <table border="0"> <tr> <td><input type="checkbox"/> Buellton</td> <td><input type="checkbox"/> Santa Barbara City</td> </tr> <tr> <td><input type="checkbox"/> Carpinteria</td> <td><input type="checkbox"/> Santa Maria</td> </tr> <tr> <td><input type="checkbox"/> Goleta</td> <td><input type="checkbox"/> Solvang</td> </tr> <tr> <td><input type="checkbox"/> Guadalupe</td> <td><input type="checkbox"/> Unincorporated Santa Barbara County</td> </tr> <tr> <td><input type="checkbox"/> Lompoc</td> <td></td> </tr> </table>	<input type="checkbox"/> Buellton	<input type="checkbox"/> Santa Barbara City	<input type="checkbox"/> Carpinteria	<input type="checkbox"/> Santa Maria	<input type="checkbox"/> Goleta	<input type="checkbox"/> Solvang	<input type="checkbox"/> Guadalupe	<input type="checkbox"/> Unincorporated Santa Barbara County	<input type="checkbox"/> Lompoc											
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<input type="checkbox"/> Lompoc																					
2.	<p>Cual es el código postal de su domicilio?</p>																				
	<p>_____</p>																				
3.	<p>El comité de mitigación de riesgo identificó los siguientes riesgos como teniendo el potencial de tener impactos en el Condado de Santa Bárbara. Favor marcar los tres (3) que sean de mayor preocupación en su vecindario o domicilio.</p>																				
	<table border="0"> <tr> <td><input type="checkbox"/> Agricultura (pestes y enfermedad)</td> <td><input type="checkbox"/> Derrumbes/Erosión Costera</td> </tr> <tr> <td><input type="checkbox"/> Falla de la Represa o embalse</td> <td><input type="checkbox"/> Maremoto</td> </tr> <tr> <td><input type="checkbox"/> Terremoto</td> <td><input type="checkbox"/> Incendios Forestales</td> </tr> <tr> <td><input type="checkbox"/> Inundación (incluyendo áreas costeras)</td> <td></td> </tr> </table> <p>Por favor liste cualquier otro riesgo adicional que amenace su vecindario u hogar.</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> Agricultura (pestes y enfermedad)	<input type="checkbox"/> Derrumbes/Erosión Costera	<input type="checkbox"/> Falla de la Represa o embalse	<input type="checkbox"/> Maremoto	<input type="checkbox"/> Terremoto	<input type="checkbox"/> Incendios Forestales	<input type="checkbox"/> Inundación (incluyendo áreas costeras)													
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4.	<p>Que medidas ha tomado usted para proteger su residencia contra los riesgos identificados en la pregunta #3? (escoja todas la que apliquen)</p>																				
	<table border="0"> <tr> <td><input type="checkbox"/> Refuerzo estructural sísmico y/o de los cimientos</td> </tr> <tr> <td><input type="checkbox"/> Modificaciones al primer piso para proteger contra inundación</td> </tr> <tr> <td><input type="checkbox"/> Instalación de válvulas de cheque</td> </tr> <tr> <td><input type="checkbox"/> Area defendible alrededor de su residencia (quitar la vegetación alrededor de la casa para reducir el riesgo de incendio)</td> </tr> <tr> <td><input type="checkbox"/> Reconversión usando materiales resistentes al fuego</td> </tr> <tr> <td><input type="checkbox"/> Instalación de rociadores contra incendios</td> </tr> <tr> <td><input type="checkbox"/> Instalación de una boca de incendio o un tanque de agua a flor de tierra</td> </tr> <tr> <td><input type="checkbox"/> Aperturas reforzadas (Puertas, ventanas y/o puerta del garaje para reducir riesgos altos de viento)</td> </tr> </table> <p>Otros (por favor especifique)</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> Refuerzo estructural sísmico y/o de los cimientos	<input type="checkbox"/> Modificaciones al primer piso para proteger contra inundación	<input type="checkbox"/> Instalación de válvulas de cheque	<input type="checkbox"/> Area defendible alrededor de su residencia (quitar la vegetación alrededor de la casa para reducir el riesgo de incendio)	<input type="checkbox"/> Reconversión usando materiales resistentes al fuego	<input type="checkbox"/> Instalación de rociadores contra incendios	<input type="checkbox"/> Instalación de una boca de incendio o un tanque de agua a flor de tierra	<input type="checkbox"/> Aperturas reforzadas (Puertas, ventanas y/o puerta del garaje para reducir riesgos altos de viento)												
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5.	<p>Si un evento severo ocurriera hoy (terremoto, o falla de la represa) tal que todos los servicios fuesen interrumpidos en su casa (electricidad, gas, agua, drenajes) y usted no pudiera alejarse o tener acceso a una tienda por 72 horas, cuales de estas cosas tiene usted disponibles?</p>																				
	<table border="0"> <tr> <td><input type="checkbox"/> Agua Potable (3 galones por persona)</td> <td><input type="checkbox"/> Ropa Extra y Zapatos</td> </tr> <tr> <td><input type="checkbox"/> Utensilios para cocinar y comer</td> <td><input type="checkbox"/> Cobijas / Bolsas de Dormir</td> </tr> <tr> <td><input type="checkbox"/> Abrelatas</td> <td><input type="checkbox"/> Efectivo</td> </tr> <tr> <td><input type="checkbox"/> Comida enlatada / Alimentos no perecederos</td> <td><input type="checkbox"/> Linterna (con baterías)</td> </tr> <tr> <td><input type="checkbox"/> Hornilla de Gas o Estufa de acampar</td> <td><input type="checkbox"/> Gasolina</td> </tr> <tr> <td><input type="checkbox"/> Medicamentos Extras</td> <td><input type="checkbox"/> Teléfono (con baterías)</td> </tr> <tr> <td><input type="checkbox"/> Kit de Primeros Auxilios</td> <td><input type="checkbox"/> Alimento para mascotas</td> </tr> <tr> <td><input type="checkbox"/> Radio AM FM portátil con baterías/ energía solar/ o de manivela)</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Handheld "Walkie-Talkie" Radios (with batteries)</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Documentos importantes en un contenedor a prueba de agua y fuego</td> <td></td> </tr> </table> <p>Que otras cosas tiene Ud. en su Kit de Emergencia?</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> Agua Potable (3 galones por persona)	<input type="checkbox"/> Ropa Extra y Zapatos	<input type="checkbox"/> Utensilios para cocinar y comer	<input type="checkbox"/> Cobijas / Bolsas de Dormir	<input type="checkbox"/> Abrelatas	<input type="checkbox"/> Efectivo	<input type="checkbox"/> Comida enlatada / Alimentos no perecederos	<input type="checkbox"/> Linterna (con baterías)	<input type="checkbox"/> Hornilla de Gas o Estufa de acampar	<input type="checkbox"/> Gasolina	<input type="checkbox"/> Medicamentos Extras	<input type="checkbox"/> Teléfono (con baterías)	<input type="checkbox"/> Kit de Primeros Auxilios	<input type="checkbox"/> Alimento para mascotas	<input type="checkbox"/> Radio AM FM portátil con baterías/ energía solar/ o de manivela)		<input type="checkbox"/> Handheld "Walkie-Talkie" Radios (with batteries)		<input type="checkbox"/> Documentos importantes en un contenedor a prueba de agua y fuego	
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<p>Para más información acerca de la preparación de un Kit de Emergencia, por favor visite: http://www.ready.gov/america/getakit/index.html</p>																					

6.	Tiene usted un plan para evacuar a sus animales mayores y/o sus mascotas? (marque todas las que apliquen)
	<input type="checkbox"/> Si, tengo un plan para evacuar mis mascotas (perros, gatos, etc.). <input type="checkbox"/> Si, tengo un plan para evacuar animales mayores (caballos, vacas, etc.). <input type="checkbox"/> No, aunque tengo mascotas, no he planeado para su evacuación. <input type="checkbox"/> No, tengo animales mayores, pero no he planeado para su evacuación. <input type="checkbox"/> No aplica, no tengo animales mayores ni mascotas.
7.	Esta Usted familiarizado con las necesidades especiales de sus vecinos en la eventualidad de una situación de desastre (necesidades especiales pueden incluir movilidad limitada, condiciones medicas severas, problemas de memoria, etc.)?
	<input type="checkbox"/> Si <input type="checkbox"/> No
8.	Es usted un miembro entrenado de su Equipo de Respuesta a Emergencias de su Comunidad (CERT)? (Nota: Pueda ser que su comunidad utilice un nombre diferente de CERT.)
	<input type="checkbox"/> Si <input type="checkbox"/> No, quisiera saber más acerca de CERT. <input type="checkbox"/> No, no estoy interesado en entrenamiento como miembro de CERT. <p style="text-align: center;"><i>Para mayor información acerca de CERT, por favor visite: www.citizencorps.gov/cert. Por favor comparta con nosotros por que aun no es usted miembro de CERT</i></p> <hr/> <hr/>
9.	Cuales son las cosas mas importantes que su gobierno local puede hacer para ayudar a las comunidades estar mejor preparadas para enfrentar un desastre? (Escoja las que apliquen)
	<input type="checkbox"/> Diseminar notificaciones de emergencias y comunicaciones en forma efectiva <input type="checkbox"/> Proveer de entrenamiento y educación a los residentes y a los propietarios de negocios acerca de como pueden reducir los daños futuros <input type="checkbox"/> Proyección a la comunidad acerca de preparativos para una emergencia. <input type="checkbox"/> Conciencia de las necesidades especiales de la población vulnerable <input type="checkbox"/> Elaboración de planes para usar voluntarios para ayudar en un desastre Otros (por favor sea específico): <hr/> <hr/>
10.	Vive usted en un edificio de apartamentos o vivienda con habitaciones sobre el garaje o área de parqueo?
	<input type="checkbox"/> Si <input type="checkbox"/> No
11.	Si es así, describa su nivel de preocupación acerca de que el edificio colapse en un terremoto grande.
	<input type="checkbox"/> Extremadamente preocupado <input type="checkbox"/> Poco <input type="checkbox"/> Alto <input type="checkbox"/> No tengo preocupación, me siento seguro en mi casa. <input type="checkbox"/> Moderado <input type="checkbox"/> No aplica
12.	Si es usted propietario, tiene usted seguridad contra terremotos adecuada para cubrir los riesgos que pudieran impactar su vivienda?
	<input type="checkbox"/> Si, mi seguridad es adecuada <input type="checkbox"/> No, no creo que la cobertura de mi seguridad sea adecuada para cubrir un desastre mayor <input type="checkbox"/> No estoy seguro <input type="checkbox"/> No tengo seguridad <input type="checkbox"/> No se aplica, soy inquilino

13.	Si es usted un inquilino, tiene seguridad para inquilinos?
	<input type="checkbox"/> Si <input type="checkbox"/> No <input type="checkbox"/> No aplica, soy dueño de mi residencia.
14.	Tiene seguridad contra terremotos para su residencia?
	<input type="checkbox"/> Si, soy dueño de mi residencia y tengo seguridad contra terremotos. Si, Alquilo mi residencia y tengo seguridad contra terremotos. <input type="checkbox"/> No, pero estoy interesado en revisar las opciones para seguridad contra terremotos (http://www.earthquakeauthority.com/). <input type="checkbox"/> No, la seguridad contra terremotos es muy cara. <input type="checkbox"/> No, no necesito seguridad contra terremotos.
15.	Tiene seguridad contra inundación para su residencia?
	<input type="checkbox"/> Si, soy propietario de mi residencia y tengo seguridad contra inundación. <input type="checkbox"/> Alquilo mi casa y tengo seguridad contra inundación. <input type="checkbox"/> No, pero estoy interesado en revisar opciones para seguridad contra inundación. (http://www.floodsmart.gov/floodsmart/). <input type="checkbox"/> No, no necesito seguridad contra inundación.
16.	Por favor note cualquier otra seguridad que tenga para su residencia o propiedad.
	<hr/> <hr/>
17.	Trabaja usted en el Condado de Santa Bárbara?
	<input type="checkbox"/> Si <input type="checkbox"/> No <input type="checkbox"/> Si es así, por favor indique su código postal (zip code): _____
18.	Su lugar de trabajo, se encuentra en un área susceptible a riesgos naturales? (escoja todos los que apliquen)
	<input type="checkbox"/> Área de inundación de alto riesgo <input type="checkbox"/> Área de peligro de derrumbes <input type="checkbox"/> Zona de fallas de terremotos <input type="checkbox"/> Áreas forestales en la interfase urbana (peligro de incendios forestales) <input type="checkbox"/> Zona de licuefacción <input type="checkbox"/> No se Otros (por favor especifique): <hr/> <hr/>
19.	Tiene su patrono o empresa un plan para recuperación de desastres?
	<input type="checkbox"/> Si <input type="checkbox"/> No <input type="checkbox"/> No se
20.	Tiene su patrono o empresa un plan de comunicaciones entre los empleados que se implementaría enseguida de un desastre natural para ponerse en contacto con usted?
	<input type="checkbox"/> Si <input type="checkbox"/> No <input type="checkbox"/> No se
21.	Por favor liste cualquier estudio que usted sepa que se haya elaborado en su comunidad o en el condado en relación a los peligros debdos a futuros eventos de riesgo (i.e. edificios de mampostería sin reforzar, o inventarios de edificios no reforzados, análisis de inundación de represas, etc.)
	<hr/> <hr/>

22.	<p>Que recomendaciones tiene para el Condado de Santa Bárbara y las ciudades incorporadas para mejorar la identificación, priorización e implementación de acciones diseñadas a reducir futuros daños e incrementar la resistencia (i.e. reconversión en infraestructura, actualización de códigos de construcción)?</p>
	<p><input type="checkbox"/> Llevar a cabo alcances para asegurar que las personas estén consientes de su entorno y los riesgos inherentes</p> <p><input type="checkbox"/> Proveer entrenamiento y materiales acerca de como pueden prepararse los residentes para afrontar los riesgos identificados</p> <p><input type="checkbox"/> Imponer/actualizar los códigos de construcción</p> <p>Otros (por favor especifique):</p> <p>_____</p> <p>_____</p>
23.	<p>Por favor recomiende cualquier compañía o asociaciones locales que deberían estar involucradas en el plan de mitigación de riesgos del Condado de Santa Bárbara</p>
	<p>#1 Nombre de la Compañía/Asociación: _____</p> <p>Nombre del contacto: _____</p> <p>Dirección electrónica del contacto: _____</p> <p>Numero de teléfono del contacto: _____</p> <p>#2 Nombre de la Compañía/Asociación: _____</p> <p>Nombre del contacto: _____</p> <p>Dirección electrónica del contacto: _____</p> <p>Numero de teléfono del contacto: _____</p>
24.	<p>Quisiera usted revisar y hacer comentarios sobre un borrador del anexo del Plan Multi-Jurisdiccional de Mitigación de Múltiples-Riesgos de su jurisdicción?</p>
	<p><input type="checkbox"/> Si, por favor notifíqueme usando mi información de contacto en la siguiente pregunta.</p> <p><input type="checkbox"/> No</p>
25.	<p>Por favor indíquenos su nombre, número de teléfono y dirección para que podamos notificarle de futuras oportunidades para participar en la planificación de resistencia a riesgos naturales y mitigación de riesgos. Si no tiene una dirección electrónica, por favor denos su dirección de correo.</p>
	<p>Nombre completo: _____</p> <p>Dirección electrónica: _____</p> <p>Dirección: _____</p> <p>Ciudad, Estado y Código Postal: _____</p> <p>Jurisdicción en la que esta interesado: _____</p>
26.	<p>Por favor proporcionenos cualquier comentario/sugerencia/pregunta adicional que usted tenga acerca de su riesgo a futuros desastres naturales.</p>
	<p>_____</p> <p>_____</p> <p>_____</p>

Gracias por tomarse el tiempo para responder a esta encuesta. Si usted tiene preguntas acerca de esta encuesta, puede usted ponerse en contacto con **Corinne Bartshire** at cbartshire@dewberry.com or 415.295.7116.

Bartshire, Corinne

From: Abrams, Richard [rabrams@countyofsb.org]
Sent: Friday, March 25, 2011 11:14 AM
To: Bartshire, Corinne
Subject: FW: Santa Barbara County LHMP Public Survey: Ready for Dissemination

Corinne, we are distributing to our CAER Chapter (a govt-industry group).

Regards;

Richard Abrams, CEM
Emergency Manager
Office of Emergency Services
105 E. Anapamu St. Suite 3
Santa Barbara, CA 93101
805.560.1081 ext.1040
rabrams@countyofsb.org

From: Fry, Craig [mailto:Craig.Fry@flir.com]
Sent: Friday, March 25, 2011 10:40 AM
To: Abrams, Richard
Subject: RE: Santa Barbara County LHMP Public Survey: Ready for Dissemination

Richard,

Does the note below sound about right?

Regards – Craig

To All,

SB County Office of Emergency Services (OES) is gathering emergency preparedness data, and has asked SB CAER members to participate in the survey.

Your responses will greatly help OES develop a more accurate picture of the community's current level of preparedness, and enable them to focus their efforts on enhancing the overall preparedness of the County.

Attached are the hardcopy versions (Eng & Span) of the survey, although the preferred method to complete the survey is online at <http://countyofsb.org/ceo/oes>.

Your consideration of this request would be appreciated

Kind Regards – Craig

From: Abrams, Richard [mailto:rabrams@countyofsb.org]
Sent: Friday, March 25, 2011 10:13 AM
To: Fry, Craig
Subject: RE: Santa Barbara County LHMP Public Survey: Ready for Dissemination

Bartshire, Corinne

From: Abrams, Richard [rabrams@countyofsb.org]
Sent: Tuesday, March 29, 2011 1:34 PM
To: Bartshire, Corinne
Subject: FW: story on Haz Mitigation Plan update

For the record. Local paper story, see below.

Regards;

Richard Abrams, CEM
Emergency Manager
Office of Emergency Services
105 E. Anapamu St. Suite 3
Santa Barbara, CA 93101
805.560.1081 ext.1040
rabrams@countyofsb.org

From: Nora Wallace [mailto:nwallace@newspress.com]
Sent: Tuesday, March 29, 2011 12:30 PM
To: Abrams, Richard
Subject: Re: story on Haz Mitigation Plan update

Thank you so much!!

I went online and did the survey, and also printed out a lot of nice info from your links -- such as the FEMA financial records document. Great stuff!

My story is slated to run tomorrow.

Very much appreciate your replies.

Take care,
nora

On Mar 29, 2011, at 12:20 PM, Abrams, Richard wrote:

Thank you for your interest.

In answer to your inquiry, we've had limited response so far, as the survey and press release was issued yesterday. So we anticipate greater response within the next couple of weeks. To answer you're other questions

Q2. Of course we would greatly appreciate 100% participation by each community, but realistically we may receive less than 1% participation of the county population, about 4200 responses. We hope the media assistance will generate greater public response.

Q3. Many mitigation actions have been completed as a result of or in anticipation to potential storm events. After the Gap, Tea and Jesusita fires a couple of years ago, the County Flood Control District in cooperation with city public works departments performed many clearing projects for debris basins, and creeks. Debris guards were constructed, culverts cleared or repaired. Other projects included road repairs or slope stabilization. One other significant project is the seismic retrofit of the Santa Barbara Courthouse. Other

actions relate to public education projects such as the Community Emergency Response Team (CERT) training offered throughout the county in almost every community.

Q4. Deferred projects vary from planning issues to public education efforts to construction projects. Deferring these projects may result from budget or staffing considerations, or reprioritized projects and efforts. Some public works mitigation actions are expensive, large scale projects. Other types of mitigation actions involve community fire plans or technical studies such slope stability projects in other communities.

Q5. We expect to have a Draft Plan by June.

Regards;

Richard Abrams, CEM
Emergency Manager
Office of Emergency Services
105 E. Anapamu St. Suite 3
Santa Barbara, CA 93101
805.560.1081 ext.1040
rabrams@countyofsb.org

From: Nora Wallace [<mailto:nwallace@newspress.com>]
Sent: Tuesday, March 29, 2011 11:05 AM
To: Abrams, Richard
Subject: story on Haz Mitigation Plan update

Hello Mr. Abrams,

I'm getting a chance today to write up the plea for public survey response on the county's Multi-Jurisdiction Hazard Mitigation Plan and I had a couple quick questions.

I'd appreciate any help you can provide today.

I'm leaving at 4 p.m. for my son's t-ball game, so if you have time before 3 p.m., that would really help!

Here are the questions, just to give you a heads up. Response by email is fine if that helps you.

1. How has the public response been so far?
2. What is your desired participation rate -- how many people do you expect to take the survey?
3. Can you give me a couple examples of "mitigation actions" that have already been completed?
4. In the press release, it says some mitigation actions have been deferred due to "issues beyond our control." Can you please tell me what has been deferred and what the issues beyond your control are? (budget??)
5. When do you expect review draft plan to be available for public review?

Thank you so much!

Nora Wallace
SB News-Press
nwallace@newspress.com
736-1070

SANTA BARBARA COUNTY FIRE DEPARTMENT
"ANSWERING THE CALL SINCE 1926"

H O M E



Our Mission

Mission Statement

The Santa Barbara County Fire Department serves and safeguards the community from the impacts of fires, medical emergencies, environmental emergencies, and natural disasters through leadership, planning, education, prevention, code enforcement, and all-hazard emergency response.

Vision Statement

The Santa Barbara County Fire Department will be a model public safety agency, widely recognized for our effectiveness, regional strength, and community attentiveness.

Core Values

Commitment – Courage - Integrity - Innovation - Teamwork - Service

Santa Barbara County - Hazard Mitigation Survey

Your help is needed to make our community more resilient to events like earthquakes, wildfires or floods. With a grant from the Federal Emergency Management Agency (FEMA), the **Santa Barbara County Office of Emergency Services** is leading a local effort to update the County's Hazard Mitigation Plan. This plan identifies natural hazards throughout Santa Barbara County. The plan lists potential actions needed to reduce those risks and future damage. This planning helps emergency managers and residents better prepare for disasters while enabling the County and cities to be eligible for various assistance grants.

Please visit...

http://www.surveymonkey.com/s/SantaBarbaraCounty_LHMP2011_English

or in

Spanish...http://www.surveymonkey.com/s/SantaBarbaraCounty_LHMP2011_Spanish

Thank You for Your Support.

Our County FireFighters in Action



[more photos...](#)

If you have photos of our firefighters in action that you would like to share, please email them to
webmaster@sbcfire.com

Are You Ready?

Fire can be a year-round threat here in Santa Barbara County.
Learn the [steps you can take to safeguard your home year-round](#) in this informative video.

Protect your Home from Wildfire!



Learn more about how you can [Prepare for Fire Season!](#) Being prepared for the next wildfire means taking the personal responsibility to protect yourself, your family, and your property. The most critical person in preparing and protecting your life and property is not the firefighter, but you, the property owner.

In order to reduce this potential and as a part of the Department's [Defensible Space and Hazard Reduction program](#) the Santa Barbara County Fire Department sends notices to abate fire hazards to the owners of all properties in county fire jurisdiction that potentially pose a fire hazard. These notices indicate the start of yearly weed abatement requirements.

It is not a matter of "if" another wildfire will occur in our area, but "when".

[Learn more about how to protect your home from wildfire.](#)

Fire Resistive Construction Recommendations

Houses protect people if people protect houses!



It is very important to realize that although no (livable!) house is fire proof, there are steps you can take to make it a lot more fire-safe! Some changes can be done very quickly and inexpensively. Others may require more effort, expense, and in some cases professional help.

In conjunction with your Wildfire Action Plan, we suggest you visit the [California Homeowner's Wildfire Mitigation Guide](#) (while visiting the guide click on "Decks", "Fences", "Garages" or one of the other titles for more information). This site includes

recommendations for Fire Resistive Construction in addition to home improvements, repairs, additions and maintenance.

These two additional links have information about your [roof](#) or other [vulnerable parts of your home](#) and include information on other possible problems and solutions that can make your home a safer refuge during a wildfire.

These recommendations are in compliance with County and State Building and Fire Codes and are offered with permission by the University of California Cooperative Extension.

Additionally, CALFIRE provides the [Wildland Urban Interface \(WUI\) Products guide](#) to give homeowners and building officials a list of "compliant WUI products", for retrofit and new construction building materials that are approved for use in our High Fire Hazard Zones. Please visit the [CALFIRE web site](#) web for updates and other related information.

Residential Safety Survey



Please use this [Residential Safety Survey](#) as a guide to help you improve the fire resistive features of your home, maintain your defensible space and insure our ability to access your home in an emergency. We encourage you to phone or [visit your neighborhood County Fire Station](#) crew to invite them to come by and help you assess the safety of your home and possibly identify no-cost or low-cost ways to improve your family's safety during a wildfire. This is a no-cost service to our communities.

Red Flag Warnings



A Red Flag Warning in your area means that the combinations of terrain, weather and fuel moisture are at hazardous levels and could lead to rapid or dramatic increases in wildfire activity. Be prepared!

The [Red Flag Warning Plan](#) utilizes available Santa Barbara County Fire Department forces, cooperating fire agencies, citizen groups, and the news media to inform the public of high fire danger, the potential for a major wildfire, and the need to be aware of and exercise fire safe practices during

these periods.

Bartshire, Corinne

From: Abrams, Richard [rabrams@countyofsb.org]
Sent: Monday, April 04, 2011 9:17 AM
To: Bartshire, Corinne; Melton, Ginni
Cc: Abrams, Richard
Subject: SB Fire Safe Council

SBFSC Board

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Rolf Larsen
Charlie Johnson
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Mike Williams



Dear Richard,

Couple of items for your review:

Update on Ted's accident :

I visited Ted yesterday. He is recovering at Cottage Rehabilitation Center. He really took a hard hit. It's truly a blessing he's still with us. For a man that took a hit as hard as he did, Ted is doing amazing well. He is in daily physical therapy, in good spirits and coming to grips with his current reality. Visitors are welcome to stop by 2415 De La Vina Street, or his new cell phone # is 805-705-0290. I know he would like to hear from you.

Ted does have a family and neighborhood friends that will assist him on his transition home in a couple weeks. I'll let you know how we can participate as we figure this out.

There was a nice article in yesterday's New Press about Ted's accident and his recovery. It can be accessed by pressing [here](#)

County's Multi-Jurisdictional Hazard Mitigation Plan:

The County is working on updating the County's Multi-jurisdictional Hazard Mitigation Plan. Part of the update process is to solicit public input, so the consulting firm that has been hired by County OES to do this has created a survey that is in both English and Spanish. The survey can be found on County Fire's website www.sbcfire.com under the heading "Santa Barbara County-Hazard Mitigation Survey". Comments are due by April 30th.

Sincerely,

Paul Cashman, Chairman
Santa Barbara County Fire Safe Council



Santa Barbara County
County Executive Office / Office of Emergency Management
4408 Cathedral Oaks Rd • Santa Barbara, CA 93110
(805) 681-5526 • FAX (805) 681-5592
www.countyofsb.org/ceo/oes

P R E S S R E L E A S E

News Media Contact:

Richard Abrams, Emergency Manager
(805) 681-5526, or rabrams@countyofsb.org

FOR IMMEDIATE RELEASE

July 8, 2011

County Officials Seek Public Input to the Draft Hazard Mitigation Plan

Is your home or office building susceptible to damage from earthquakes, wildfires, floods, or utility service interruption? Do you want to increase the chances that you can recover from disasters and prevent future damage from these and other natural hazards?

Public review and comment is being solicited for the Review Draft of the Santa Barbara County Local Hazard Mitigation Plan 2011 Update. This plan is currently under review by Cal EMA and FEMA to ensure compliance with the Disaster Mitigation Act of 2000 allowing the County and participating cities to maintain eligibility to receive federal mitigation grant funding. This plan identifies the primary natural hazards of risk and presents measures to increase resiliency throughout Santa Barbara County.

The County has been successful in receiving mitigation grants since the original development of this plan in 2005. Currently, the County has received grant funding to seismically retrofit the Santa Maria Courthouse building.

A PDF version of the review draft may be downloaded from www.countyofsb.org/ceo/oes. Public comments are encouraged. Please direct any questions or comments to the County's consultant: Corinne Bartshire at cbartshire@dewberry.com or 916.380.3776 or the County Emergency Manager: Richard Abrams at rabrams@countyofsb.org or 805.681.5526.

Comments received prior to July 22nd will be considered for incorporation in the plan prior to adoption by the Board of Supervisors. Comments received after this date will be held for consideration in future updates to this plan.

Note: Annexes to this plan, for each incorporated City, are under development. Separate opportunities for public review will be announced and coordinated by each City.

###



Santa Barbara County
County Executive Office / Office of Emergency Management
4408 Cathedral Oaks Rd • Santa Barbara, CA 93110
(805) 681-5526 • FAX (805) 681-5592
www.countyofsb.org/ceo/oes

ANUNCIO DE PRENSA

Contacto Para Información:
Richard Abrams, Manager de Emergencias
(805) 681-5526, or rabrams@countyofsb.org

Para Distribución Inmediata

Julio 8, 2011

Oficiales del Condado Piden sus Opiniones acerca del Plan de Mitigación de Riesgos

Son susceptibles su hogar o edificio de oficinas a daños causados por terremotos, fuegos o inundaciones? Quiere recuperarse más rápidamente de un desastre natural y prevenir los daños causados por esos y otros riesgos naturales?

Se solicita la revisión y el comentario del público acerca del "Review Draft" de la actualización del Plan de Mitigación de Riesgos del Condado de Santa Bárbara (Santa Barbara County Local Hazard Mitigation Plan 2011 Update). Este plan está siendo actualmente revisado por CalEMA y FEMA para asegurar cumplimiento con el Acta de Mitigación de Desastres del 2000 (Disaster Mitigation Act of 2000) lo que permite que el condado y las ciudades participantes continúen siendo elegibles a recibir fondos federales de mitigación. Este plan identifica los riesgos naturales primarios y presenta medidas para incrementar la resistencia en todo el condado de Santa Bárbara.

El condado ha tenido éxito en recibir fondos de mitigación desde la creación original de este plan en el 2005. Actualmente, el condado ha recibido fondos para remozar el edificio de la Corte de Santa María.

Una versión PDF del este plan puede bajarse del sitio www.countyofsb.org/ceo/oes. Solicitamos los comentarios del público. Por favor dirija sus preguntas o comentarios al consultor de Condado: Corinne Bartshire at cbartshire@dewberry.com o al teléfono 916.380.3776, o bien al County Emergency Manager: Richard Abrams at rabrams@countyofsb.org o al teléfono 805.681.5526.

Comentarios recibidos antes del 22 de Julio serán considerados para incorporación al plan antes de su adopción por el Consejo de Supervisores (Board of Supervisors). Comentarios recibidos después de esta fecha serán retenidos para ser considerados en futuras actualizaciones de este plan.

Nota: Anexos a este plan, para cada una de las Ciudades incorporadas, están siendo preparados. Habrá oportunidades por separado para revisión y comentario público, estas serán anunciadas y coordinadas por cada una de las Ciudades individualmente.

###



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7/8/2011 13:08

[Oficiales del Condado Piden sus Opiniones acerca del Plan de Mitigación de Riesgos](#)

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[Did You Forget Something / Left Inside a Vehicle](#)

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7/1/2011 12:00

[Hot Weather Tips from Public Health](#)

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[Animal Safe 4th of July](#)

7/1/2011 08:03

[Public Redistricting Proposals Available for Viewing](#)

6/30/2011 17:38

[Santa Barbara County Fire Responds to Four Wildfires / Cause Determined](#)

6/29/2011 16:03

[Day Reporting Centers To Graduate First Class](#)

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Office of Emergency Services

About the Santa Barbara County Emergency Services

Office

The Santa Barbara County Office of Emergency Services (SBC OES) is a department within the County Executive Office, and is responsible for emergency planning coordination for the Santa Barbara Operational Area.

Stay Updated With Santa Barbara County OES Links



County Officials Want Your Input!

Read and provide feedback for the Draft Hazard Mitigation Plan via the links below

[Santa Barbara County Draft Hazard Mitigation Plan](#)

[Santa Barbara County
Draft Hazard Mitigation Plan Appendices](#)

March 17, 2011 Link Update:

[Santa Barbara County Tsunami Inundation Maps](#)

Sign Up for the Reverse 911® Service through

Bartshire, Corinne

From: Bartshire, Corinne
Sent: Tuesday, July 12, 2011 7:27 AM
To: Abrams, Richard
Cc: Bartshire, Corinne; Victoria LaMar-Haas
Subject: Santa Barbara County Hazard Mitigation Plan: Review Draft Available for Public Comment

Dear Community Member,

On behalf of the Santa Barbara County Office of Emergency Management, I am pleased to invite you to download and review the Public Review Draft of the [Santa Barbara County Hazard Mitigation Plan 2011 Update](#). Input from you or your organization will be invaluable to increasing disaster resiliency in our community.

This plan is currently under review by Cal EMA and FEMA to ensure compliance with the Disaster Mitigation Act of 2000 allowing the County and participating cities to maintain eligibility to receive federal mitigation grant funding. This plan identifies the primary natural hazards of risk and presents measures to increase resiliency throughout Santa Barbara County.

The County has been successful in receiving mitigation grants since the original development of this plan in 2005. Currently, the County has received grant funding to seismically retrofit the Santa Maria Courthouse building.

A PDF version of the review draft may be downloaded from www.countyofsb.org/ceo/oes. Public comments are encouraged. Please direct any questions or comments directly to me at cbartshire@dewberry.com or 916.380.3776 or the County Emergency Manager: Richard Abrams at rabrams@countyofsb.org or 805.681.5526. Please reference the Santa Barbara County HMP in your correspondence.

Comments received prior to July 22nd will be considered for incorporation in the plan prior to adoption by the Board of Supervisors. Comments received after this date will be held for consideration in future updates to this plan.

Note: Annexes to this plan, for each incorporated City, are under development. Separate opportunities for public review will be announced and coordinated by each City.

Please forward this message to fellow residents and community members of Santa Barbara County and incorporated cities. We sincerely appreciate your time and cooperation in helping our community become more resilient.

Thank you for your participation!

Corinne Bartshire, AICP, CFM
Project Manager
Dewberry
1410 Rocky Ridge Road, Suite 305
Roseville, CA 95661
cbartshire@dewberry.com
916.380.3776
916.380.3750 (fax)
www.dewberry.com

(distributed to stakeholder_distribution_07122011.xls via BCC)

Bartshire, Corinne

From: Mark van de Kamp [mvandekamp@ci.santa-maria.ca.us]
Sent: Tuesday, September 13, 2011 11:22 AM
To: Bartshire, Corinne; Abrams, Richard
Subject: News article

Corinne, Richard: This article appeared in today's Santa Barbara News-Press

Supervisors to discuss FEMA disaster response report : Document to detail county's resources, abilities

NORA K. WALLACE, NEWS-PRESS STAFF WRITER

September 13, 2011 6:03 AM

The Santa Barbara County Board of Supervisors will today discuss a wide-ranging document required by the Federal Emergency Management Agency that evaluates the impacts of natural disasters on the public and on regional governments.

The board begins its meeting at 9 a.m. at the Betteravia Government Center, 511 E. Lakeside Parkway, in Santa Maria.

The county's Multi-Jurisdiction Hazard Mitigation Plan is required by FEMA, and details the county resources - and its capability -- to respond to the impacts of natural disasters. It also proposes actions or projects designed to reduce the impacts.

The county's current plan was approved in 2005 but had to be updated, according to the county, because the Federal Disaster Mitigation Act of 2000 requires all local governments to create a disaster plan in order to qualify for federal mitigation funding.

The OEM obtained a \$77,633 grant to help pay for the costs of creating the plan.

In developing the plan, the county created a public survey, and received more than 500 responses.

The nine incorporated cities in the county are required to develop their own supplements to the report, detailing mitigation actions and projects that are specific to the individual towns. Those will be sent to FEMA and the California office of Emergency Management for approval and will be included in the county's overall document.

The 300-page plan can be found at www.countyofsb.org/ceo/oes.

The hazards addressed in the plan, and to be discussed by the supervisors today, include natural disasters such as wildfire, flooding, tsunamis, landslides or coastal erosion, agricultural pests and disease and dam failure.

During the county's survey of the public, other potential threats or hazards emerged as concerns, including train wrecks, downed power lines, climate-change-induced storms and sea-level rise, gas leaks, oil rig explosions, chemical exposure, Diablo Canyon Power Plant meltdown, traffic during evacuations, high winds and plane crashes, among others.

The plan is also meant to help the county's emergency management staff in determining how best to respond to emergencies, and is also expected to assist local governments in making planning decisions about such emergencies.

The board will also hear a report on incentives for historic landmark designation. The issue came up earlier this month when a homeowner sought to have a Hope Ranch cabana and funicular designated as a county Historic Landmark.

During a discussion last week on the matter, several supervisors sought clarification of the process. According to county staff, the major benefit for property owners to seek a landmark status is the ability to use a special provision of the Historic Building Code.

"These provisions allow reduced requirements for qualifying historical buildings in areas such as allowable floor area, required parking and California energy standards," according to a county staff report on the item.

email: nwallace@newspress.com

Mark van de Kamp / Management Analyst II / City Manager's Office / City of Santa Maria / 110 E. Cook Street, Rm. 1 / Santa Maria, CA 93454 / (805) 925-0951 ext. 372 / Fax: (805) 349-0657 mvandekamp@ci.santa-maria.ca.us / www.ci.santa-maria.ca.us

Bartshire, Corinne

From: Abrams, Richard [rabrams@countyofsb.org]
Sent: Wednesday, September 14, 2011 12:01 PM
To: Bartshire, Corinne
Cc: Abrams, Richard
Subject: FW: News Press

For the record

Richard Abrams, CEM
County Executive Office
Office of Emergency Management
4408 Cathedral Oaks Rd.
Santa Barbara, California 93110
NEW (805) 681-5526 (24/7)
(805) 681-5592 (FAX)
rabrams@countyofsb.org



From: James Caesar [mailto:James.Caesar@ehs.ucsb.edu]
Sent: Wednesday, September 14, 2011 11:57 AM
To: Abrams, Richard
Subject: News Press

NORA K. WALLACE, NEWS-PRESS STAFF WRITER

September 14, 2011 5:42 AM

In an unusually swift meeting, the Santa Barbara County Board of Supervisors on Tuesday gave its approval to an expansive document detailing the threat of natural disasters and associated risks to the community.

Meeting in Santa Maria, the board voted unanimously to accept the multi-jurisdiction hazard mitigation plan, which is required by the Federal Emergency Management Agency.

The plan, some 300 pages, focuses on natural hazards and the history of repetitive damage, as well as the risks to the county, and offers possible fixes, said Michael Harris, the county's emergency operations chief.

"This allows us after a disaster to sit down and look at mitigation plans and address those with the federal government," Mr. Harris told the board.

The plan, he noted, does include some proposed projects, but the board approval does not obligate the county to carry those to fruition, he said.

"Those things change," Mr. Harris said. "What we have in the plan will evolve over the next year, and the years after that. ... This is a plan that puts these projects on the radar screen."

FEMA officials, he said, specifically want counties to detail damages from repeated storms and events and outline possible ways to address the problems.

"They're looking at it and asking why they have to come back and repair damage," he said.

The plan evaluates risks such as flooding and earthquakes, as well as severe weather issues, coastal erosion and even agricultural pests.

"The plan focuses specifically on natural hazards and our ability to mitigate those through construction practices," he said. "Mitigation is the key to protecting county structures."

The plan also creates a document that enables the county to place the issues before state and federal agencies when money becomes available.

"When we talk about a jobs bill, every emergency operations person dreams they pull out a hazardous mitigation plan and say, 'Give me a couple projects,' and that would give everybody work," Mr. Harris said.

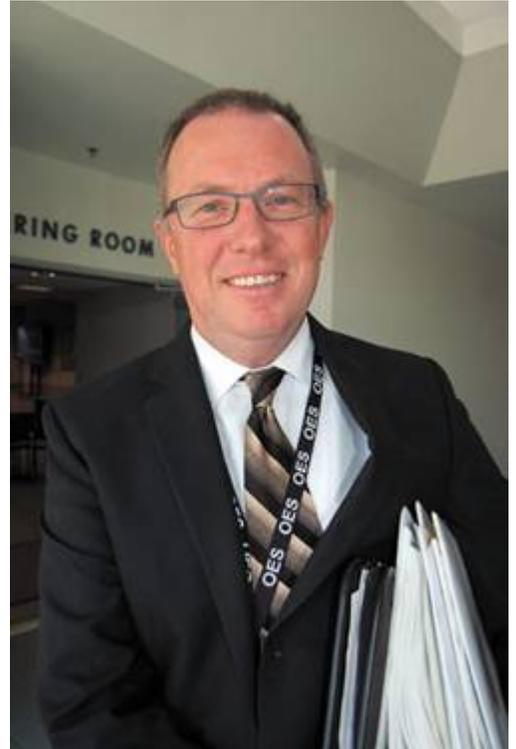
The plan outlines the risk factors for various natural disasters and the possible impacts. In looking at the county's "earthquake vulnerability," for instance, a 7.0 tremor could leave 55,000 buildings in the county with moderate damage and 7,200 would be damaged beyond repair.

The county's vulnerability to dam failure has 39 critical county facilities within the inundation zone, with a potential of approximately \$32 million in building value and \$2.8 million in contents exposed to risk. With wildfires, there is a 33 percent chance of a major wildfire starting in any year, given that there have been 29 major wildfires in the county in the past 88 years, the report states.

In approving the mitigation plan, the board established an informal subcommittee of 2nd District Supervisor Janet Wolf and 3rd District Supervisor Doreen Farr, to work with county emergency managers on evaluating other risks, including non-natural concerns such as potential problems at the Diablo Canyon power plant.

Because the nuclear power facility is in San Luis Obispo County, it is not deemed at risk from a "natural disaster within our county," and was not included, Mr. Harris said.

Ms. Wolf said she wants to work with staff on developing a "more inclusive plan of every risk." Ms. Farr said she wants to make sure the mitigation measures are coordinated with potential funding sources. Some of the project options to fix repeat problems, she said, might already be in the county's capital improvement plan (CIP).



Michael Harris, the county's emergency operations chief
NORA K. WALLACE/NEWS-PRESS

"If they're not in the CIP, they should be," Ms. Farr said. "They could be denoted with a red star or footnote that they're part of our emergency planning effort."

Ms. Farr also said county residents "want to know what to do in an emergency and they want to be part of the solution."

Richard Abrams, emergency manager with the Office of Emergency Management, called the plan a "living document."

"It's continually worked on and updated," Mr. Abrams said.

Bartshire, Corinne

From: Abrams, Richard [rabrams@countyofsb.org]
Sent: Tuesday, September 13, 2011 12:33 PM
To: 'Lynda McClanahan'; 'juliette.hayes@dhs.gov'
Cc: Abrams, Richard; Bartshire, Corinne; Rickard, Dave; Abrams, Richard; Beltranena, Juan; Clementi, Paul; Eady, Nathan; Parker, Mike; Abrams, Richard; Rickard, Dave; Tanner, Robert; Tingos, Guy; Tracy, Bill; Adomaitis, V; cebeling@ci.carpinteria.ca.us; Claudia Dato; Dave Durlinger; Rickard, Dave; Fayram, Tom; Greg Nordyke; Jack Owen ; James Caesar; Jeff Jones; jeri.siegel@calema.ca.gov; Marc Bierdzinski; Mark Van De Kamp; Mary Ellen Rio ; McGlinchey, Y; Regan Candalario; Kovach, R; Roney, Brian; Tanner, Robert; Ubaldo, Alex
Subject: SB Co Hazard Mitigation Plan Adoption

Ms. Hayes (FEMA/DHS) and Ms. McClanahan (CalEMA);
The Santa Barbara County Board of Supervisors adopted the Hazard Mitigation Plan at today's (September 13, 2011) hearing. We will provide the required documents to your offices as soon as they are available from the Clerk of the Board. Thank you for your assistance and guidance in this process.

Richard Abrams, CEM
County Executive Office
Office of Emergency Management
4408 Cathedral Oaks Rd.
Santa Barbara, California 93110
NEW (805) 681-5526 (24/7)
(805) 681-5592 (FAX)
rabrams@countyofsb.org



HAZUS-MH: Earthquake Event Report

Region Name SB1

Earthquake Scenario: Test2

Print Date: May 10, 2011

Totals only reflect data for those census tracts/blocks included in the user's study region.

Disclaimer:

The estimates of social and economic impacts contained in this report were produced using HAZUS loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

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General Description of the Region

HAZUS is a regional earthquake loss estimation model that was developed by the Federal Emergency Management Agency and the National Institute of Building Sciences. The primary purpose of HAZUS is to provide a methodology and software application to develop earthquake losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from earthquakes and to prepare for emergency response and recovery.

The earthquake loss estimates provided in this report was based on a region that includes 1 county(ies) from the following state(s):

California

Note:

Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 2,749.93 square miles and contains 86 census tracts. There are over 136 thousand households in the region and has a total population of 399,347 people (2000 Census Bureau data). The distribution of population by State and County is provided in Appendix B.

There are an estimated 128 thousand buildings in the region with a total building replacement value (excluding contents) of 32,239 (millions of dollars). Approximately 91.00 % of the buildings (and 79.00% of the building value) are associated with residential housing.

The replacement value of the transportation and utility lifeline systems is estimated to be 4,354 and 1,153 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

HAZUS estimates that there are 128 thousand buildings in the region which have an aggregate total replacement value of 32,239 (millions of dollars) . Appendix B provides a general distribution of the building value by State and County.

In terms of building construction types found in the region, wood frame construction makes up 83% of the building inventory. The remaining percentage is distributed between the other general building types.

Critical Facility Inventory

HAZUS breaks critical facilities into two (2) groups: essential facilities and high potential loss (HPL) facilities. Essential facilities include hospitals, medical clinics, schools, fire stations, police stations and emergency operations facilities. High potential loss facilities include dams, levees, military installations, nuclear power plants and hazardous material sites.

For essential facilities, there are 7 hospitals in the region with a total bed capacity of 920 beds. There are 162 schools, 18 fire stations, 16 police stations and 0 emergency operation facilities. With respect to HPL facilities, there are 15 dams identified within the region. Of these, 11 of the dams are classified as 'high hazard'. The inventory also includes 10 hazardous material sites, 0 military installations and 0 nuclear power plants.

Transportation and Utility Lifeline Inventory

Within HAZUS, the lifeline inventory is divided between transportation and utility lifeline systems. There are seven (7) transportation systems that include highways, railways, light rail, bus, ports, ferry and airports. There are six (6) utility systems that include potable water, wastewater, natural gas, crude & refined oil, electric power and communications. The lifeline inventory data are provided in Tables 1 and 2.

The total value of the lifeline inventory is over 5,507.00 (millions of dollars). This inventory includes over 596 kilometers of highways, 360 bridges, 18,164 kilometers of pipes.

Table 1: Transportation System Lifeline Inventory

System	Component	# locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	360	407.90
	Segments	270	3,299.40
	Tunnels	1	1.70
	Subtotal		3,709.10
Railways	Bridges	6	0.60
	Facilities	5	13.30
	Segments	157	263.90
	Tunnels	0	0.00
	Subtotal		277.80
Light Rail	Bridges	0	0.00
	Facilities	0	0.00
	Segments	0	0.00
	Tunnels	0	0.00
	Subtotal		0.00
Bus	Facilities	5	6.40
	Subtotal		6.40
Ferry	Facilities	3	4.00
	Subtotal		4.00
Port	Facilities	0	0.00
	Subtotal		0.00
Airport	Facilities	5	53.30
	Runways	8	303.70
	Subtotal		357.00
		Total	4,354.20

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	181.60
	Facilities	0	0.00
	Pipelines	0	0.00
		Subtotal	181.60
Waste Water	Distribution Lines	NA	109.00
	Facilities	8	628.70
	Pipelines	0	0.00
		Subtotal	737.70
Natural Gas	Distribution Lines	NA	72.70
	Facilities	0	0.00
	Pipelines	0	0.00
		Subtotal	72.70
Oil Systems	Facilities	2	0.20
	Pipelines	0	0.00
		Subtotal	0.20
Electrical Power	Facilities	4	519.20
		Subtotal	519.20
Communication	Facilities	42	5.00
		Subtotal	5.00
		Total	1,516.40

Earthquake Scenario

HAZUS uses the following set of information to define the earthquake parameters used for the earthquake loss estimate provided in this report.

Scenario Name	Test2
Type of Earthquake	Probabilistic
Fault Name	NA
Historical Epicenter ID #	NA
Probabilistic Return Period	1,000.00
Longitude of Epicenter	NA
Latitude of Epicenter	NA
Earthquake Magnitude	7.00
Depth (Km)	NA
Rupture Length (Km)	NA
Rupture Orientation (degrees)	NA
Attenuation Function	NA

Building Damage

Building Damage

HAZUS estimates that about 55,031 buildings will be at least moderately damaged. This is over 43.00 % of the total number of buildings in the region. There are an estimated 7,207 buildings that will be damaged beyond repair. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the HAZUS technical manual. Table 3 below summaries the expected damage by general occupancy for the buildings in the region. Table 4 summaries the expected damage by general building type.

Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	132	0.44	175	0.40	213	0.59	126	1.07	94	1.30
Commercial	920	3.08	1,212	2.80	2,068	5.73	1,704	14.49	1,346	18.68
Education	43	0.14	58	0.13	79	0.22	50	0.42	32	0.44
Government	22	0.07	27	0.06	44	0.12	38	0.33	32	0.44
Industrial	214	0.72	296	0.68	564	1.56	503	4.28	428	5.94
Other Residential	3,615	12.12	5,991	13.85	6,930	19.22	4,392	37.34	3,496	48.50
Religion	100	0.33	121	0.28	162	0.45	115	0.98	86	1.19
Single Family	24,794	83.09	35,375	81.78	26,002	72.11	4,835	41.10	1,694	23.50
Total	29,840		43,256		36,061		11,763		7,208	

Table 4: Expected Building Damage by Building Type (All Design Levels)

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	27,935	93.61	40,716	94.13	30,388	84.27	5,723	48.65	2,061	28.59
Steel	240	0.80	319	0.74	818	2.27	897	7.62	695	9.64
Concrete	397	1.33	564	1.30	804	2.23	638	5.43	522	7.24
Precast	212	0.71	272	0.63	592	1.64	545	4.63	440	6.10
RM	830	2.78	670	1.55	1,162	3.22	953	8.10	625	8.67
URM	77	0.26	108	0.25	214	0.59	220	1.87	327	4.54
MH	149	0.50	608	1.40	2,084	5.78	2,788	23.70	2,538	35.22
Total	29,840		43,256		36,061		11,763		7,208	

*Note:

RM Reinforced Masonry
URM Unreinforced Masonry
MH Manufactured Housing

Essential Facility Damage

Before the earthquake, the region had 920 hospital beds available for use. On the day of the earthquake, the model estimates that only 316 hospital beds (34.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 81.00% of the beds will be back in service. By 30 days, 98.00% will be operational.

Table 5: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		At Least Moderate Damage > 50%	Complete Damage > 50%	With Functionality > 50% on day 1
Hospitals	7	0	0	2
Schools	162	0	0	0
EOCs	0	0	0	0
PoliceStations	16	6	0	0
FireStations	18	13	0	0

Transportation and Utility Lifeline Damage

Table 6 provides damage estimates for the transportation system.

Table 6: Expected Damage to the Transportation Systems

System	Component	Locations/ Segments	Number of Locations_			
			With at Least Mod. Damage	With Complete Damage	With Functionality > 50 %	
					After Day 1	After Day 7
Highway	Segments	270	0	0	270	270
	Bridges	360	116	6	247	334
	Tunnels	1	0	0	1	1
Railways	Segments	157	0	0	157	157
	Bridges	6	1	0	5	6
	Tunnels	0	0	0	0	0
	Facilities	5	3	0	2	3
Light Rail	Segments	0	0	0	0	0
	Bridges	0	0	0	0	0
	Tunnels	0	0	0	0	0
	Facilities	0	0	0	0	0
Bus	Facilities	5	2	0	3	3
Ferry	Facilities	3	0	0	3	3
Port	Facilities	0	0	0	0	0
Airport	Facilities	5	2	0	3	4
	Runways	8	0	0	8	8

Note: Roadway segments, railroad tracks and light rail tracks are assumed to be damaged by ground failure only. If ground failure maps are not provided, damage estimates to these components will not be computed.

Tables 7-9 provide information on the damage to the utility lifeline systems. Table 7 provides damage to the utility system facilities. Table 8 provides estimates on the number of leaks and breaks by the pipelines of the utility systems. For electric power and potable water, HAZUS performs a simplified system performance analysis. Table 9 provides a summary of the system performance information.

Table 7 : Expected Utility System Facility Damage

System	# of Locations				
	Total #	With at Least Moderate Damage	With Complete Damage	with Functionality > 50 %	
				After Day 1	After Day 7
Potable Water	0	0	0	0	0
Waste Water	8	8	0	0	2
Natural Gas	0	0	0	0	0
Oil Systems	2	2	0	0	1
Electrical Power	4	4	0	0	2
Communication	42	42	0	21	42

Table 8 : Expected Utility System Pipeline Damage (Site Specific)

System	Total Pipelines Length (kms)	Number of Leaks	Number of Breaks
Potable Water	9,082	8314	2079
Waste Water	5,449	6576	1644
Natural Gas	3,633	7029	1757
Oil	0	0	0

Table 9: Expected Potable Water and Electric Power System Performance

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	136,622	113,582	112,571	110,383	91,906	0
Electric Power		67,651	51,856	29,889	8,353	79

Induced Earthquake Damage

Fire Following Earthquake

Fires often occur after an earthquake. Because of the number of fires and the lack of water to fight the fires, they can often burn out of control. HAZUS uses a Monte Carlo simulation model to estimate the number of ignitions and the amount of burnt area. For this scenario, the model estimates that there will be 54 ignitions that will burn about 2.83 sq. mi (0.10 % of the region's total area.) The model also estimates that the fires will displace about 11,749 people and burn about 898 (millions of dollars) of building value.

Debris Generation

HAZUS estimates the amount of debris that will be generated by the earthquake. The model breaks the debris into two general categories: a) Brick/Wood and b) Reinforced Concrete/Steel. This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 2.370 million tons of debris will be generated. Of the total amount, Brick/Wood comprises 32.00% of the total, with the remainder being Reinforced Concrete/Steel. If the debris tonnage is converted to an estimated number of truckloads, it will require 94,880 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.

Social Impact

Shelter Requirement

HAZUS estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 8,910 households to be displaced due to the earthquake. Of these, 6,891 people (out of a total population of 399,347) will seek temporary shelter in public shelters.

Casualties

HAZUS estimates the number of people that will be injured and killed by the earthquake. The casualties are broken down into four (4) severity levels that describe the extent of the injuries. The levels are described as follows;

- Severity Level 1: Injuries will require medical attention but hospitalization is not needed.
- Severity Level 2: Injuries will require hospitalization but are not considered life-threatening
- Severity Level 3: Injuries will require hospitalization and can become life threatening if not promptly treated.
- Severity Level 4: Victims are killed by the earthquake.

The casualty estimates are provided for three (3) times of day: 2:00 AM, 2:00 PM and 5:00 PM. These times represent the periods of the day that different sectors of the community are at their peak occupancy loads. The 2:00 AM estimate considers that the residential occupancy load is maximum, the 2:00 PM estimate considers that the educational, commercial and industrial sector loads are maximum and 5:00 PM represents peak commute time.

Table 10 provides a summary of the casualties estimated for this earthquake

Table 10: Casualty Estimates

		Level 1	Level 2	Level 3	Level 4
2 AM	Commercial	49	15	2	5
	Commuting	0	0	1	0
	Educational	0	0	0	0
	Hotels	57	17	3	5
	Industrial	44	14	2	4
	Other-Residential	1,237	326	41	79
	Single Family	675	118	7	12
	Total	2,062	490	56	105
2 PM	Commercial	2,762	843	141	278
	Commuting	2	4	5	1
	Educational	618	187	32	62
	Hotels	11	3	1	1
	Industrial	325	100	17	32
	Other-Residential	175	45	5	10
	Single Family	119	21	1	2
	Total	4,013	1,203	202	386
5 PM	Commercial	2,003	606	102	197
	Commuting	70	112	166	33
	Educational	150	46	8	16
	Hotels	17	5	1	2
	Industrial	203	62	10	20
	Other-Residential	469	124	16	30
	Single Family	265	46	3	5
	Total	3,176	1,002	306	302

Economic Loss

The total economic loss estimated for the earthquake is 9,233.81 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the earthquake.

The total building-related losses were 8,465.23 (millions of dollars); 17 % of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 57 % of the total loss. Table 11 below provides a summary of the losses associated with the building damage.

Table 11: Building-Related Economic Loss Estimates
(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.00	51.81	272.26	7.92	13.53	345.52
	Capital-Related	0.00	22.07	245.88	4.78	4.60	277.33
	Rental	54.74	119.80	122.11	3.27	7.65	307.57
	Relocation	206.25	82.60	182.50	14.79	59.27	545.41
	Subtotal	261.00	276.28	822.75	30.75	85.05	1,475.83
Capital Stock Loses							
	Structural	377.87	197.60	298.79	55.78	88.52	1,018.56
	Non_Structural	1,792.91	1,101.84	1,031.58	219.35	235.04	4,380.71
	Content	537.94	259.24	485.97	143.82	123.01	1,549.98
	Inventory	0.00	0.00	11.41	23.73	5.01	40.15
	Subtotal	2,708.72	1,558.68	1,827.74	442.69	451.57	6,989.40
	Total	2,969.72	1,834.96	2,650.50	473.44	536.62	8,465.23

Transportation and Utility Lifeline Losses

For the transportation and utility lifeline systems, HAZUS computes the direct repair cost for each component only. There are no losses computed by HAZUS for business interruption due to lifeline outages. Tables 12 & 13 provide a detailed breakdown in the expected lifeline losses.

HAZUS estimates the long-term economic impacts to the region for 15 years after the earthquake. The model quantifies this information in terms of income and employment changes within the region. Table 14 presents the results of the region for the given earthquake.

Table 12: Transportation System Economic Losses
(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Highway	Segments	3,299.42	\$0.00	0.00
	Bridges	407.95	\$72.29	17.72
	Tunnels	1.72	\$0.23	13.52
	Subtotal	3709.10	72.50	
Railways	Segments	263.89	\$0.00	0.00
	Bridges	0.57	\$0.13	23.30
	Tunnels	0.00	\$0.00	0.00
	Facilities	13.32	\$6.82	51.20
	Subtotal	277.80	7.00	
Light Rail	Segments	0.00	\$0.00	0.00
	Bridges	0.00	\$0.00	0.00
	Tunnels	0.00	\$0.00	0.00
	Facilities	0.00	\$0.00	0.00
	Subtotal	0.00	0.00	
Bus	Facilities	6.43	\$2.89	44.98
	Subtotal	6.40	2.90	
Ferry	Facilities	3.99	\$0.00	0.00
	Subtotal	4.00	0.00	
Port	Facilities	0.00	\$0.00	0.00
	Subtotal	0.00	0.00	
Airport	Facilities	53.26	\$21.69	40.74
	Runways	303.71	\$0.00	0.00
	Subtotal	357.00	21.70	
	Total	4354.20	104.10	

Table 13: Utility System Economic Losses

(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Potable Water	Pipelines	0.00	\$0.00	0.00
	Facilities	0.00	\$0.00	0.00
	Distribution Line	181.60	\$37.41	20.60
	Subtotal	181.64	\$37.41	
Waste Water	Pipelines	0.00	\$0.00	0.00
	Facilities	628.70	\$305.52	48.59
	Distribution Line	109.00	\$29.59	27.15
	Subtotal	737.69	\$335.11	
Natural Gas	Pipelines	0.00	\$0.00	0.00
	Facilities	0.00	\$0.00	0.00
	Distribution Line	72.70	\$31.63	43.54
	Subtotal	72.66	\$31.63	
Oil Systems	Pipelines	0.00	\$0.00	0.00
	Facilities	0.20	\$0.08	32.97
	Subtotal	0.24	\$0.08	
Electrical Power	Facilities	519.20	\$258.48	49.78
	Subtotal	519.20	\$258.48	
Communication	Facilities	5.00	\$1.81	36.45
	Subtotal	4.96	\$1.81	
	Total	1,516.38	\$664.51	

Table 14. Indirect Economic Impact with outside aid
 (Employment as # of people and Income in millions of \$)

	LOSS	Total	%
First Year			
	Employment Impact	3,866	3.00
	Income Impact	(53)	-0.87
Second Year			
	Employment Impact	1,662	1.29
	Income Impact	(190)	-3.12
Third Year			
	Employment Impact	37	0.03
	Income Impact	(252)	-4.14
Fourth Year			
	Employment Impact	0	0.00
	Income Impact	(254)	-4.17
Fifth Year			
	Employment Impact	0	0.00
	Income Impact	(254)	-4.18
Years 6 to 15			
	Employment Impact	0	0.00
	Income Impact	(254)	-4.18

Appendix A: County Listing for the Region

Santa Barbara, CA

Appendix B: Regional Population and Building Value Data

State	County Name	Population	Building Value (millions of dollars)		
			Residential	Non-Residential	Total
California	Santa Barbara	399,347	25,579	6,660	32,239
Total State		399,347	25,579	6,660	32,239
Total Region		399,347	25,579	6,660	32,239



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NATURAL GAS PIPELINE SAFETY



Southern California Gas Co.'s Service Territory

Southern California Gas Co. (The Gas CompanySM) is the nation's largest natural gas distribution utility, serving 20.7 million consumers through nearly 5.8 million meters.

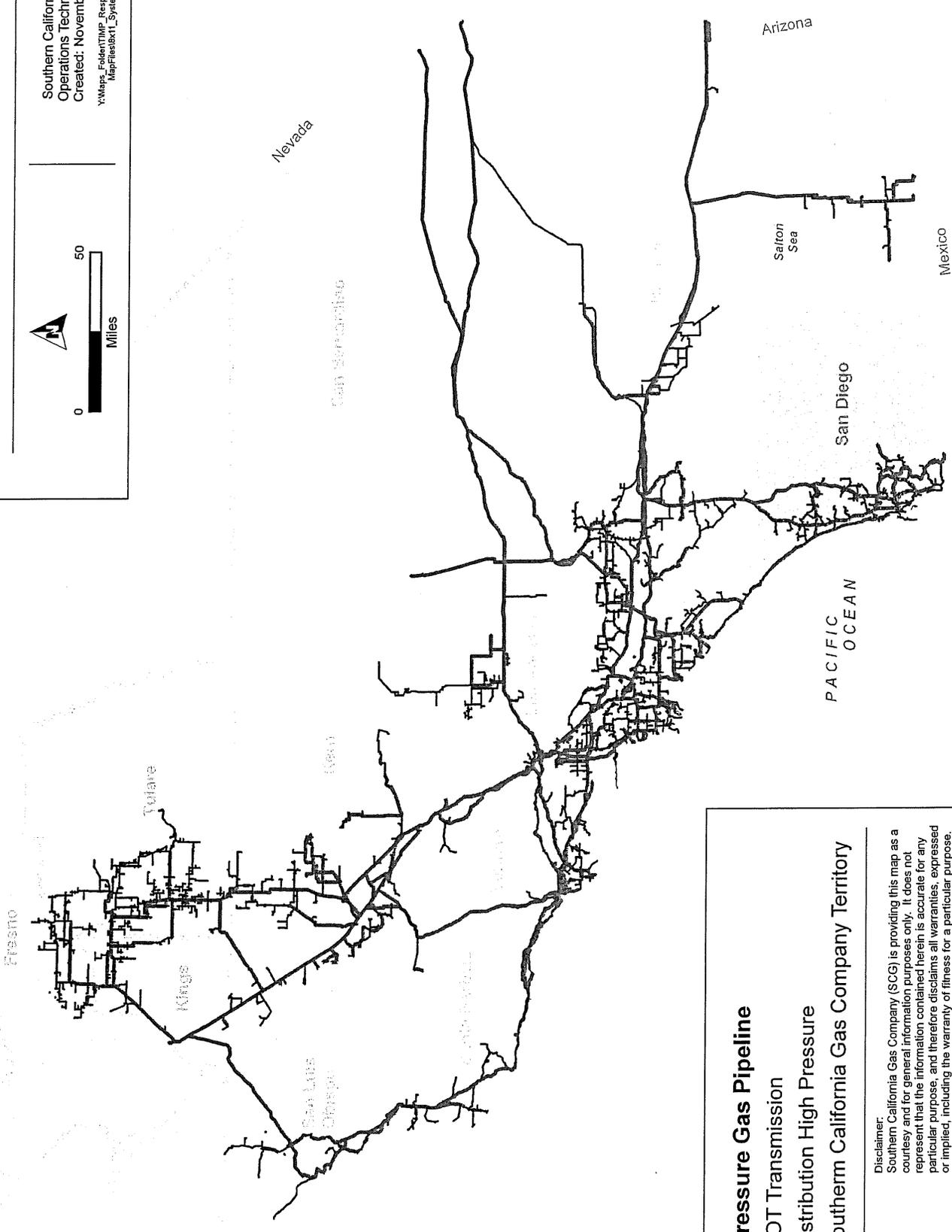
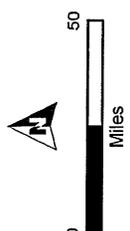
The service territory covers about 20,000 square miles, from San Luis Obispo in the north to the Mexican border in the south. The service territory covers 12 counties, 220 incorporated cities and at least as many unincorporated communities. Included are most of the region's heavily populated areas, with the exception of the city of Long Beach and county of San Diego.

The Gas Company owns and operates about 4,000 miles of natural gas transmission pipelines, 48,000 miles of distribution pipelines and about 49,000 miles of service lines. The Gas Company also operates 11 transmission compressor stations and four underground storage facilities with a combined capacity to store 133.1 billion cubic feet of natural gas.

The Gas Company's major transmission and distribution pipelines are shown on the enclosed map.

Southern California Gas Company High Pressure Transmission and Distribution System

Southern California Gas Co.
Operations Technology - GIS
Created: November 19, 2010
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MapFiles\xt1_SystemMapC.mxd



- High Pressure Gas Pipeline**
- DOT Transmission
- Distribution High Pressure
- Southern California Gas Company Territory

Disclaimer:
Southern California Gas Company (SCG) is providing this map as a courtesy and for general information purposes only. It does not represent that the information contained herein is accurate for any particular purpose, and therefore disclaims all warranties, expressed or implied, including the warranty of fitness for a particular purpose. Independent verification from experts is necessary for the time of any specific use. Recipient accepts full responsibility for any consequences associated with use of this information.





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NATURAL GAS PIPELINE SAFETY



Emergency Preparedness

Employees of The Gas CompanySM are available to respond to emergencies every hour of every day. Whether there is a major earthquake or a contractor hits and breaks a local natural gas pipeline, we are prepared to respond whenever and wherever the need arises in our service territory.

Being prepared for emergencies is critical for The Gas Company to provide safe and reliable service to the 20.7 million consumers who receive natural gas through nearly 5.8 million meters throughout central and southern California. While we do much to ensure the safety of our system, events that are beyond our control can occur. We prepare for these emergencies, and we encourage our customers to take steps so they can protect themselves and their families as well.

Utility Response

The Gas Company has established a specific structure to respond to incidents and emergencies within our service territory.

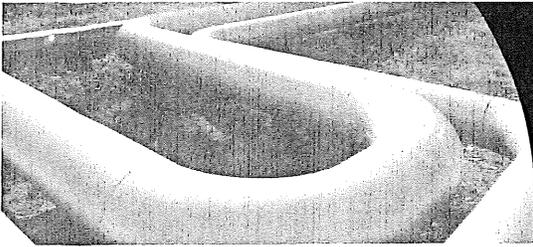
Our field crews are typically first on the scene. In most instances, such as when someone digs into a pipeline, they will make the needed repairs so the pipeline or equipment can be operated safely. Often, this requires coordination with local fire and police officials, and it may involve restoring service to affected customers. While all such incidents are reported to management, our field crews are trained and able to take care of them on their own.

If the situation is more complicated and potentially could affect more facilities and customers, then regional management will open a local Gas Emergency Center (GEC).

Each of our four operating regions has a GEC. Local management and support personnel will meet there to provide their expertise, coordinate the field's efforts and arrange for equipment and other resources field personnel need to respond appropriately to the incident.

In the event of a major emergency, such as an earthquake that causes significant damage throughout the region, we will open our Emergency Operations Center (EOC). While our primary EOC is located in downtown Los Angeles, we have backup facilities available if that location is not feasible. Company executives and employees trained in emergency response will come together at this specially equipped facility to support local management in the GECs. EOC personnel will make sure the field has needed equipment and supplies, whether it be a portable generator for lights, new pipes or food for employees, and coordinate communication to employees and external audiences.

Continued on back



Representatives of The Gas Company also are on call to city and county emergency operation centers so that we can coordinate our response to emergencies.

Although emergency response is part of the utility's culture, we don't take it for granted. Members of our emergency response teams go through regular training. Emergency exercises, often unannounced, test their skills.

The Gas Company also has mutual assistance agreements with other utilities. If needed, we can call on these utilities to send us additional personnel and equipment. Other utilities also can, and have, called on us for assistance.

Our goal, always, is to protect public, property and employee safety. We do this by working with public officials, emergency responders and others to respond to and contain the emergency. At the same time, we will work to maintain natural gas service and, if needed, restore gas service as soon as possible.

Customers' Response

The Gas Company periodically includes safety tips for customers in bill inserts, emails and other communications materials.

Customers are encouraged to know where their gas meter is located and to keep a 12-inch or larger wrench available in their emergency preparedness supplies or near their gas meter. After an earthquake or similar emergency, we encourage customers to check for gas leaks.

We advise customers to turn off their gas meter **only if** they smell gas, or hear it escaping, or have another indication of a leak. After an earthquake or other emergency, our employees are busy responding to the situation to protect the safety of the communities we serve. It may take a while for us to restore service to every building where the gas has been shut off.

Safety tips and instructions on how to turn off the meter can be found on our website: www.socalgas.com/safety. Some information also may be found in the "Survival Guide" section of most telephone directory white pages.

Emergency Preparedness 10-29-10.doc
October 2010



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NATURAL GAS PIPELINE SAFETY



Pipeline Safety Resources

Natural Gas Utility Information for Southwest United States:

Southern California Gas Co.: www.socalgas.com/safety

Pacific Gas & Electric Co.: <http://www.pge.com/safety/>

San Diego Gas & Electric Co.: www.sdge.com/safety

Southwest Gas Corporation: <http://www.swgas.com/emergencysafety/index.php>

Location of Pipelines:

National Pipeline Mapping System: <http://www.npms.phmsa.dot.gov/>

Location of SCG high pressure distribution and transmission pipelines:
<http://www.socalgas.com/safety/pipelineMap.html>

Location of SDG&E high pressure distribution and transmission pipelines:
<http://www.sdge.com/safety/naturalgas/map.shtml>

Requirements:

Pipeline Integrity:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=dc45eacff3667a76cb8d149f029ce2e0&rgn=div6&view=text&node=49:3.1.1.1.4.15&idno=49>

Pipeline Public Awareness:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=dc45eacff3667a76cb8d149f029ce2e0&rgn=div8&view=text&node=49:3.1.1.1.4.12.9.11&idno=49>

Federal Agencies and Organizations:

Federal Energy Regulatory Commission: <http://www.ferc.gov/industries/gas/safety.asp>

U.S. Department of Transportation, Office of Pipeline Safety:

<http://ops.dot.gov/http://primis.phmsa.dot.gov/comm/http://primis.phmsa.dot.gov/comm/StateRegulators.htm>



California Agencies:

Office of the State Fire Marshall: <http://osfm.fire.ca.gov/pipeline/pipeline.php>

California Public Utilities Commission: <http://www.cpuc.ca.gov/PUC/energy/Gas/>

Industry Associations:

American Gas Association: <http://www.aga.org>

American Petroleum Institute: <http://api.org>

Interstate Natural Gas Association of America: <http://ingaa.org>

National Association of State Fire Marshals: <http://www.firemarshals.org>

Natural Gas Supply Association: www.naturalgas.org

Partnership for Excellence in Pipeline Safety: www.safepipelines.org

Pipeline 101: www.pipeline101.com

The Pipeline Emergencies Program: www.pipelineemergencies.com

Pipeline Association for Public Awareness (PAPA): www.pipelineawareness.org



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NATURAL GAS PIPELINE SAFETY

Pipeline Public Awareness

Pipeline safety has always been a top priority at The Gas CompanySM. We invest time and resources on the design, construction, maintenance and inspection of our pipelines so that we can continue to provide safe and reliable service to 20.7 million consumers through nearly 5.8 million meters throughout central and southern California.

As part of this effort, we have communicated with customers, residents along our transmission lines, compressor and storage stations, and distribution system excavators, land developers, public officials and emergency responders about safe practices around natural gas pipelines and responding to natural gas leaks. Beginning in June 2006, however, we, and all other pipeline operators in the nation, have been required to communicate much more aggressively than in the past.

In May 2005, the U.S. Department of Transportation issued a new federal rule outlining requirements for pipeline public awareness programs. This rule was developed in response to a requirement in the Pipeline Safety Improvement Act of 2002 for continuing public education on pipeline safety issues. The rule was based on the American Petroleum Institute's Recommended Practice (API RP 1162) that was developed by a task force of state and federal pipeline safety regulators and pipeline operators.

Objectives

According to the final rule, which was published in the Federal Register (Vol. 70, No. 96), "Promoting pipeline safety requires enhanced communications (by pipeline operators) with the public to increase public awareness of pipeline operations and safety issues." API RP 1162 states: "Public Awareness Programs should raise the awareness of the affected public and key stakeholders of the presence of pipelines in their communities and increase their understanding of the role of pipelines in transporting energy." One premise of this program is that a more informed public will contribute to a reduction in pipeline emergencies and releases.

Target Audiences

The Gas Company and other pipeline operators are required to communicate to a broad base of stakeholders:

- Customers
- Emergency Officials
- Excavators
- Land developers
- One-call centers
- Public officials
- Residents and places of congregation located near pipelines
- Residents near storage fields and other major facilities

Continued on back



The Gas Company's Program

In keeping with the requirements, The Gas Company has developed an extensive Public Awareness Plan, using new and existing communications methods. Bill inserts and onserts (messages on the bill), news releases, paid advertising, brochures, direct mail, email, safety website, meetings and one-on-one briefings are among the strategies we are using to communicate.

Pipeline safety communication with our customers occurs semi-annually, while communication with others ranges from annually to every three years. We also will conduct surveys every 4 years to determine the effectiveness of our communications efforts.

Pipeline Public Awareness 10-29-10
October 2010



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NATURAL GAS PIPELINE SAFETY



Natural Gas Safety

The Gas CompanySM has been providing safe, reliable natural gas service for more than 140 years. Today, the company serves more than 20.7 million consumers throughout southern and central California.

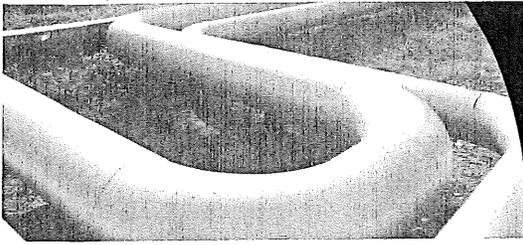
Characteristics of Natural Gas

Natural gas was formed millions of years ago through the decomposition of plants and animals. Found more than a mile beneath the earth's surface in porous rock, natural gas is composed mostly of non-reactive methane, but may contain trace amounts of other gases, including ethane, propane and butane. Before being placed in pipelines to be shipped from the producing region, it is processed to meet gas quality specifications.

Natural gas has a number of unique characteristics:

- **Odorless** -- Natural gas is virtually odorless in its pure state. For leak detection purposes, an odorant is added that can be smelled in concentrations as low as one percent.
- **Non-toxic** -- Natural gas is non-toxic and creates no hazard when inhaled in limited quantities; however, if large quantities of natural gas are allowed to displace air, lack of oxygen may result in suffocation.
- **Lighter than air** -- Natural gas escaping in the street, or other open areas, rises and dissipates rapidly; this is in contrast to liquid petroleum gases, like propane, which are heavier than air and, when allowed to escape, will flow downward and may pool in low areas.
- **Clean-burning** -- Natural gas is the cleanest burning fossil fuel, which makes it a highly desirable fuel for many applications, particularly in regions with strict air emissions requirements. When it burns, natural gas primarily produces carbon dioxide, water vapor and heat.
- **Flammability limits** - Natural gas and air must be mixed in the proper proportions in order to burn. The proportion of gas to air has definite limits known as the lower and upper flammable limits. Natural gas supplied in southern California has lower and upper limits of 4.5 percent and 15 percent. Therefore, a fire or explosion would not necessarily occur simply because gas is present.

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How to detect a natural gas pipeline leak

Though rare, natural gas pipeline leaks can occur due to natural disasters, damage by third-party contractors or hidden corrosion.

Leaking gas from any damaged pipeline or gas meter could cause a fire, explosion, property damage or serious bodily injury. That's why it's important to know that any of the following signs may indicate the presence of a gas leak:

- The distinctive odor of natural gas.*
- A hissing, whistling or roaring sound near a gas appliance or gas house piping.
- Dead or dying vegetation in an otherwise moist area over or near pipeline areas.
- A fire or explosion near a pipeline.
 - Special markers show the location of most major pipelines.
- Dirt or water being thrown in the air.
- Exposed pipeline after an earthquake, fire, flood or other disaster.

* DO NOT rely on your sense of smell alone to alert you to a natural gas leak. You may not be able to smell the odor for a number of reasons, such as an impaired sense of smell; the normal inability to distinguish the odor because of prolonged exposure to it; because the odor is being masked by the presence of other odors; or, because the odor has been lost due to certain conditions in pipe and soil (known as "odor fade").

What to do if you suspect a natural gas leak or damage to a pipeline

If you smell a natural gas odor, hear the hissing sound of gas escaping or see other signs of a leak:

- REMAIN calm.
- DON'T light a match, candle or cigarette.
- **Immediately evacuate the area**, and from a safe location, call The Gas Company at **1-800-427-2200** 24 hours a day, seven days a week; or call **911**.
- DO NOT attempt to control the leak or repair the damaged pipe.
- DO NOT turn electrical appliances or lights on or off or any equipment that could cause a spark. Motorized or electrically powered equipment or vehicles may create an ignition source if a gas leak is present.
- Safely abandon any motorized or powered equipment or vehicles.
- Gas leaking from a plastic pipe can create a static charge that can ignite the gas.

For more information, visit www.socalgas.com/safety/



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NATURAL GAS PIPELINE SAFETY

Keeping Natural Gas Pipelines Safe

The Gas CompanySM is committed to providing safe, reliable natural gas service to its nearly 5.8 million customers throughout central and southern California.

Our employees routinely perform pipeline safety tasks, including patrolling, inspecting, testing, repairing and replacing pipelines. In order to perform these important inspections, the area around our pipelines must be clear of shrubs, trees, fences and other structures. We periodically communicate this message to people who live on or own property near our pipelines.

We meet or exceed federal and state requirements for safe pipeline operations and maintenance, including ongoing technical training and testing for employees. We also have implemented a rigorous integrity management program to inspect our major pipelines. Our goal is to identify and resolve potential problems before they become actual problems. To do this, we have employees available around the clock, 24 hours a day on every day of the year.

Pipeline breaks are rare. The U.S. Department of Transportation's Office of Pipeline Safety describes pipelines as the "safest and least costly way to transport energy products." However, breaks can occur. Often this is because a third-party contractor hits the pipeline while digging. Thus, it is important that all who live and/or work in California understand that there are natural gas pipelines in their communities. And, there are steps they should take to help us ensure the safety of those pipelines.

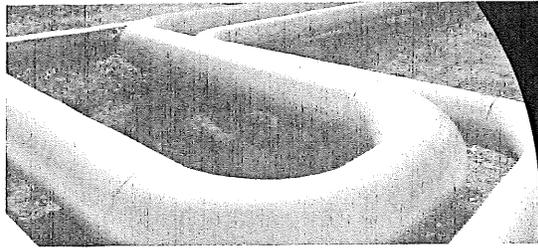
Pipeline Markers

Most pipelines are buried underground, so The Gas Company indicates the location of most major pipelines with above ground markers. These generally are located where a pipeline intersects a street, highway or rail line.

Below two of The Gas Company's pipeline markers:



Continued on back



The markers purposely indicate only the general location of our pipelines. They also do not indicate the depth or number of pipelines in the area.

To identify operators of major gas pipelines in your area and view maps with the general locations of these pipelines, visit www.npms.phmsa.dot.gov/, which is the National Pipeline Mapping System website (third-party website). Note that these maps only indicate the general location of pipelines and should never be used as a substitute for calling **811** at least two business days before digging.

Call 811 Before Digging

Digging or demolition near buried pipelines is the number one cause of pipeline damage, which can result in serious injury to bystanders, property damage, costly repairs, disruptions in gas service and project delays.

Anyone who plans to do any excavation, whether it is to plant a tree, install a fence, grade for a development or till farmland, should call 811 at least two business days before the digging is scheduled to begin. The one-call center will coordinate with The Gas Company and other utilities to mark the location of utility-owned buried facilities. This service is free of charge.

Once all lines are marked, excavators should use only hand-digging tools within 24 inches of marked gas lines. Even a slight gouge, scrape or dent to a pipeline or its coating or any component attached to, or running alongside the pipe, such as a wire, may cause a dangerous break or leak in the future. That is why The Gas Company encourages anyone who causes what seems to be even minor damage to a pipeline to notify us immediately at 1-800-427-2200 immediately. The lines will then be inspected and any needed repairs will be performed.

Safety Is Important to Us

Safety is a top priority at The Gas Company, and we spend significant resources to ensure the continuing safety of our pipelines and all our operations. However, customers, contractors and other third parties also can help us identify and prevent potential problems.

To report potential problems, we are promoting two important toll-free telephone numbers:

- **1-800-427-2200** - to report a pipeline emergency or potential emergency to The Gas Company.
- **811** - to report planned excavation to the one-call, multi-utility locating service.





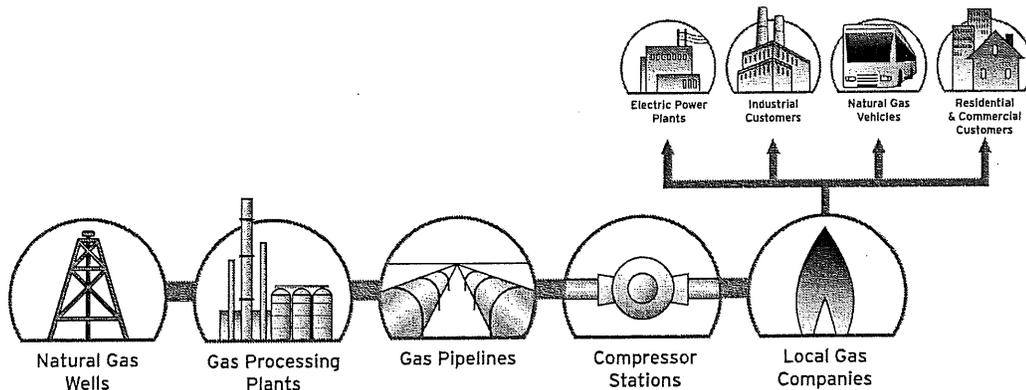
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NATURAL GAS PIPELINE

SAFETY

Pipeline Basics

The Gas CompanySM delivers about 2.6 billion cubic feet of natural gas a day to 20.7 million consumers through nearly 5.8 million meters for a wide variety of needs, ranging from cooking and space heating to electric generation. These gas deliveries are made possible through a complex network of pipelines and in-line facilities as illustrated below.



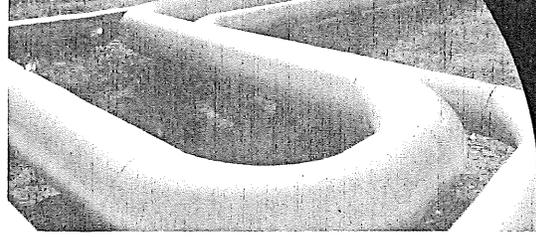
About 90 percent of the natural gas consumed by our customers comes from gas production fields in New Mexico, west Texas and Oklahoma, as well as in the Rocky Mountains and Canada. The remaining gas supply percentage is produced locally in southern and central California from fields located both onshore and offshore.

Typically, natural gas is gathered from individual production wells and then processed to remove liquids and other impurities to meet pipeline specifications. The gas is then transported to distribution systems throughout the U.S. by large, high-pressure transmission pipelines. Nearly all the natural gas in the U.S. is transported via pipelines.

Moving Natural Gas into Southern California

The Gas Company contracts for capacity on interstate pipelines to bring the gas from out-of-state producing regions into California. When gas enters southern California, it moves into the more than 100,000-mile pipeline system that is owned, operated and maintained by The Gas Company.

Continued on back



Large, high-pressure transmission pipelines transport gas supplies from the California-Arizona border and other receipt locations in southern and central California to areas throughout the company's service territory. It then may be moved into underground storage, to be made available when it is needed, or it may be moved into smaller, lower pressure mains that transport the gas around the region and directly to some larger customers. The gas then is moved into even smaller and lower pressure pipelines for delivery to homes and businesses throughout our service territory.

The Gas Company owns and operates about 4,000 miles of gas transmission pipelines, 48,000 miles of distribution pipelines and 49,000 miles of service lines. The utility's major transmission and high-pressure distribution lines are shown on the enclosed map. Information about area pipeline also can be obtained through the National Pipeline Mapping System: <http://www.npms.phmsa.dot.gov/>. The location of SoCalGas' high-pressure gas transmission and distribution pipelines can be obtained at <http://www.socalgas.com/safety/pipelineMap.html>.

Location and Design of Pipelines

When planning the construction of our pipelines and associated facilities, we work with the respective governing agencies to place them in rights-of-way along and under roadways to avoid existing and future development. It is an extensive process to install a line. Once we identify a potential route for a pipeline, we conduct a sound engineering analysis to identify any potential hazards along the route. In Southern California, these are often active earthquake faults or areas with high liquefaction susceptibility. This information is used to determine the strength of the pipe to be used and specific construction requirements for its installation.

We deploy corrosion inhibiting measures at installation, such as pipe wrap and cathodic protection to prevent steel pipes from deteriorating. In addition to all the engineering, we take the further safety precaution of pressure testing the line prior to placing it in service to validate the engineering and fitness of the pipe. The test subjects the pipeline to a significantly greater pressure level than it will be operated to validate if it is fit for service.

Operations and Maintenance

Once a pipeline is placed in service, the appropriate monitoring and surveillance activities take place as part of our never-ending commitment to safety. We conduct leakage surveys and patrols of pipelines to identify potential leaks or problems. Whenever we work on a line, we look for potential problems and analyze samples of the pipe when appropriate. Also, in conformance with the Pipeline Safety Improvement Act of 2002, we are enhancing the safety of our transmission system in populated areas through our Pipeline Integrity program. We started with the first phase in 2003 and we are on schedule to complete that phase at the end of 2012. We will thereafter reassess those pipelines every seven years.

Pipeline Basics 10-29-10.doc
October 2010



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NATURAL GAS PIPELINE SAFETY



Pipeline Regulations

The design, construction, testing, operation, maintenance and safety of all pipelines are heavily regulated. In fact, The Gas CompanySM has hundreds of procedures dealing with pipeline and/or customer safety.

Most of our procedures were developed to meet the requirements outlined in the U.S. Code of Federal Regulations, Title 49, Parts 190,191,192 and 199, and State of California General Order 112-E.

Part 190 describes the procedures used by the Office of Pipeline Safety (OPS) in carrying out its regulatory duties. This part authorizes OPS to inspect pipelines and describes the procedures by which the agency can enforce the regulations. This part also describes the legal rights and options that pipeline operating companies have in response to OPS enforcement actions.

Part 191 describes requirements on operators of gas pipelines for reporting of incidents, safety-related conditions and annual summary data.

Part 192 prescribes minimum safety requirements for design, construction, operation and maintenance of gas pipelines.

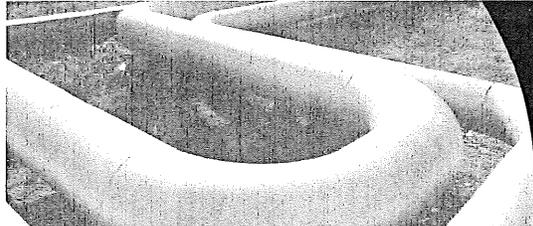
Part 199 requires operators of gas pipelines to establish programs for preventing alcohol misuse and to test employees for the presence of alcohol and prohibited drugs and provides the procedures and conditions for this testing.

General Order 112-E outlines California's rules governing design, construction, testing, operation and maintenance of gas pipeline systems.

OPS, which is part of the U.S. Department of Transportation (DOT), is the agency with primary responsibility for safety of the nation's pipelines. In California, OPS has delegated this responsibility to the California Public Utilities Commission (CPUC). The CPUC conducts annual audits of each utility's procedures for compliance with state and federal requirements.

Pipeline Safety Improvement Act of 2002

The Pipeline Safety Improvement Act of 2002, which was signed into law by President George W. Bush on Dec. 17, 2002, increased safety requirements for the operation of the nation's pipelines and mandated extensive public awareness/education programs on the existence of pipelines and pipeline safety.



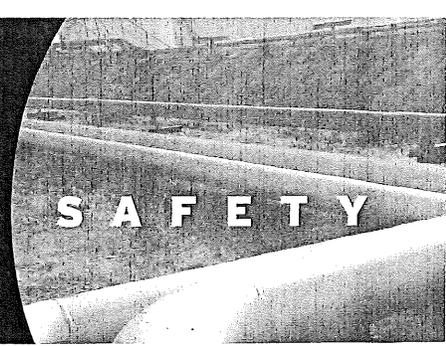
Following is a summary of the major issues covered by the Pipeline Safety Improvement Act of 2002:

- **Risk Analysis and Integrity Management Programs**
The law requires operators of natural gas pipelines to conduct an analysis of the risks to their transmission pipelines located in “high consequence areas,” which generally are heavily populated areas, and to adopt and implement integrity management programs for these transmission pipelines.
- **Pipeline Operator Qualification Program**
The law requires pipeline operators to develop and implement an operator qualification program for individuals who perform pipeline facility operating and maintenance tasks.
- **One-Call Notification Program**
DOT is required to encourage operators of one-call notification (“call before you dig”) programs to adopt and implement certain best practices.
- **Public Awareness Programs**
The law requires that pipeline operators establish continuing public education programs on pipeline safety issues.
- **National Pipeline Mapping System**
DOT is required to develop a national pipeline mapping system to provide technical assistance to state and local officials.
- **Penalties**
The law increases civil penalties that may be assessed for safety violations.
- **"Whistle-Blower" Protection**
The law prohibits operators from firing or taking adverse action against an employee as a result of certain specified actions relating to pipeline safety.
- **RD&D**
The law requires a program of research, development, demonstration and standardization to promote the safety and integrity of pipeline facilities.
- **Environmental Reviews**
The law establishes a structure for coordinated environmental review and permitting for operators to conduct necessary pipeline repairs.
- **Safety Orders**
If the DOT determines that a facility has a “potentially safety-related condition,” the act authorizes the department Secretary to order corrective action.



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NATURAL GAS PIPELINE SAFETY



Transmission Pipeline Integrity Program

Pipeline safety has always been an essential part of The Gas Company'sSM natural gas delivery system. The U.S. Department of Transportation classifies pipelines with specific properties and operating characteristics as "Transmission." These transmission pipelines are generally larger, higher pressure pipelines that deliver natural gas into the local distribution system.

Our transmission pipelines are designed and built to meet stringent standards that consider the environment around the pipeline, including population density and natural hazards such as earthquake faults. Before the pipelines are put into service, they are tested to verify that they can hold a pressure greater than the level at which they will be operated. We also install and maintain systems to prevent steel pipes from corroding.

We regularly conduct leakage surveys and patrols of pipelines to identify potential leaks or problems. And, whenever we work on a line, we look for potential problems and often use ultrasound, x-ray and other technologies to inspect the pipe.

Historically, most of this work has been performed routinely and quietly. As a result, it generally has been unseen by the public. However, the Pipeline Safety Improvement Act of 2002 has resulted in an increase in excavations and associated construction activity on transmission pipelines. This work is necessary to comply with additional regulatory requirements, including inspections of segments of the transmission pipeline system and implementation of a transmission pipeline integrity management program.

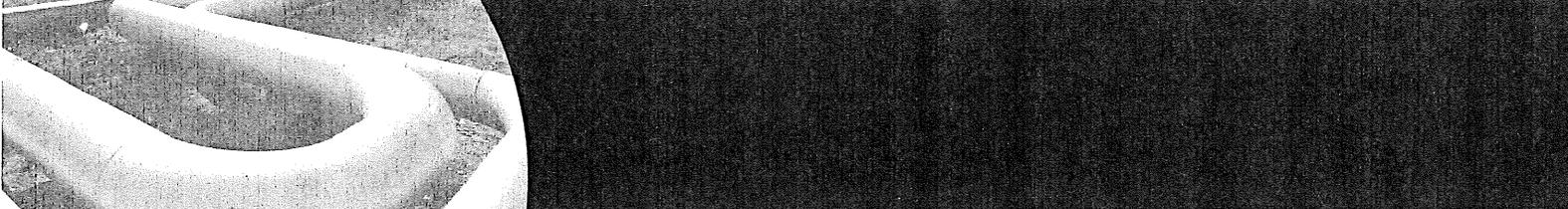
These additional regulations also have driven replacements of valves and certain bends in the pipe to allow advanced inspection tools to move through the inside of the pipelines. All of this work has and will continue to result in occasional interruption of gas service and traffic congestion on city streets.

High Consequence Areas

The new regulations, which are found in the Code of Federal Regulations and in California Public Utilities Commission (CPUC) General Order 112-E, include prescriptive detail to identify the segments of pipelines that travel through "high consequence areas" (HCAs). HCAs generally are heavily populated areas or sites where 20 or more people gather 50 or more days a year.

About 1,300 miles of pipelines in The Gas Company's service territory are in these HCAs.

Continued on back



Assessment

The law requires that an initial or baseline integrity assessment of the pipelines in HCAs be completed by December 2012. Once the baseline assessment is completed, the pipeline's integrity must be reassessed every seven years.

The law also outlines the inspection methodologies that may be used for these assessments.

One method is internal inspection. This method sends technologically advanced equipment, which are often referred to as "smart pigs" or in-line inspection tools, inside the pipe. The tools record data, such as the thickness of the walls, as they move through the pipeline. To use this method, we have had to retrofit our pipelines to accommodate the internal inspection equipment.

This has required a significant amount of excavation in streets where our pipelines are located. It also takes time. The entire process, from planning, permitting, retrofit, inspection and data analysis through needed repairs or replacement, could take as long as four years just for one pipeline.

Another method is pressure testing. This involves filling the pipeline with water under a pressure that is greater than the operating pressure to check for a sufficient safety margin.

A third methodology is "direct assessment." This technique requires the use of above ground technologies to identify where there may be damage or degradation to the external coatings or wrap that prevent corrosion on pipelines. Excavations are performed based upon the findings and the pipeline is visually inspected.

Benefits

Although customers may be impacted temporarily when a line is taken out of service to complete the retrofit and commuters may be affected by our work in the streets, our Pipeline Integrity Program is important to maintain the safety of our system.

Santa Barbara County 2011 Goals and Objectives

Revised from the 2004 Goals and Objectives through collaboration at MAC Milestone Meeting #2

At Milestone Meeting #2, the MAC reviewed the 2004 goals and objectives collaboratively and discussed the County’s current and ongoing mitigation priorities. The following goals and objectives are revised from 2004 plan to accomplish the following:

- Present a simpler, more consolidated approach to tracking mitigation progress,
- Incorporate an all-hazard approach to mitigating risk,
- Remove redundancies, and
- Re-validate the County’s priorities.

Goal 1: Promote disaster-resistant future development.
<i>Objective 1.A: Facilitate the development or updating of the Comprehensive Plan, City General Plans and zoning ordinances to limit (or ensure safe) development in hazard areas.</i>
<i>Objective 1.B: Facilitate the adoption of development standards/regulations that protect existing assets and require disaster resistant design for new development in hazard areas</i>
<i>Objective 1.C: Facilitate consistent enforcement of the comprehensive plan, zoning ordinances, and building and fire codes.</i>
<i>Objective 1.D: Address identified data limitations regarding the lack of information about new development and build-out potential in high hazard areas.</i>
<i>Objective 1.E: Educate the professional community on design and construction techniques that will minimize damage from the identified hazards</i>
Notes: This goal focuses on the programmatic/policy approaches to reducing risk to future new development. Building codes are updated on a regular basis in California. The MAC agreed the objectives for this goal are ongoing to ensure that the best and most recent building and fire codes are adopted in each of the participating jurisdictions. New building and fire codes were adopted in January 2011. Objective 1.D was formerly Objective 3.C and has been modified to refer to “high” hazard areas as opposed to all hazard areas. The MAC agreed it fit better with Goal 1 than the original Goal 3.
Goal 2: Build and support capacity and commitment for existing assets, including people, critical facilities/infrastructure, and public facilities, to become less vulnerable to hazards.
<i>Objective 2.A: Increase awareness and knowledge of hazard mitigation principles and practice among local government officials.</i>
<i>Objective 2.B: Provide technical assistance to local governments to implement their mitigation plans.</i>
<i>Objective 2.C: Address data limitations identified in Hazard Profiling and Risk Assessment</i>

Santa Barbara County 2011 Goals and Objectives
 Revised from the 2004 Goals and Objectives through collaboration at MAC Milestone Meeting #2

<p><i>Objective 2.D: Decrease the vulnerability of public infrastructure including facilities, roadways, and utilities.</i></p>
<p><i>Objective 2.E: Protect existing structures with the highest relative vulnerability to the effects of identified hazards through structural mitigation projects. (**modified from the original objective 5.A.G.)</i></p>
<p>Notes: This goal focuses on the programmatic and structural approaches to reducing risk to existing development. The term “local government” is used to refer to city, county, and special districts. This goal has been re-numbered from Goal 3 to Goal 2 and modified to reference the assets mentioned in the original Goal 5.</p>
<p>Goal 3: Enhance hazard mitigation coordination and communication.</p>
<p><i>Objective 3.A: Educate the public to increase awareness of hazards, potential impacts, and opportunities for mitigation actions.</i></p>
<p><i>Objective 3.B: Monitor and publicize the effectiveness of mitigation actions implemented countywide.</i></p>
<p><i>Objective 3.C: Participate in initiatives that have mutual hazard mitigation benefits for the County, cities, state, tribal, and federal governments.</i></p>
<p><i>Objective 3.D: Encourage other organizations, within the public, private, and non-profit sectors, to incorporate hazard mitigation activities into their existing programs and plans. (**incorporates the original objective 2.C.)</i></p>
<p><i>Objective 3.E: Continue partnerships between the state, local, and tribal governments to identify, prioritize, and implement mitigation actions.</i></p>
<p><i>Objective 3.F: Continuously improve the County’s capability and efficiency at administering pre- and post-disaster mitigation programs, including providing technical support to cities and special districts. (**incorporates the original objective 4.F.)</i></p>
<p><i>Objective 3.G: Support a coordinated permitting activities process and consistent enforcement.</i></p>
<p>Notes: This goal focuses on communication and coordination required for successful mitigation of risk. The original Goal 2: “Increase public understanding and support for effective hazard mitigation” has been consolidated with the original Goal 4: “Enhance hazard mitigation coordination and communication with federal, state, local, and tribal governments” to present this broad goal regarding all communication and coordination of hazard mitigation. The original Objective 2.B: “Increase public understanding, support, and demand for hazard mitigation for new developments” has been removed because it is being addressed through the focus on new development in Goal 1 and the communication objectives in Goal 3. The original Objective 4.G: “Coordinate recovery activities while restoring and maintaining public services” has been removed because this plan is focused on mitigation. Recovery planning is</p>

addressed elsewhere within the County.
The original Goal 5 contained objectives specific to each hazard. In order to present an all hazard approach to mitigation this goal and these objectives have been integrated into the three goals above. The comments below are included for review and validation by MAC members.
FORMER Goal 5: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to:
A. Flooding
<i>Objective 5A.A: Educate local residents and businesses on the range of flooding that could affect the County and the potential impact. (**incorporated in objective 3A)</i>
<i>Objective 5A.B: Participate in initiatives that result in better risk communication and the evaluation of flood threats. (**incorporated in objective 3A and 3C)</i>
<i>Objective 5A.C: Decrease the vulnerability of public infrastructure including facilities, roadways, and utilities. (**Moved to become objective 2D)</i>
<i>Objective 5A.D: Educate the professional community on design and construction techniques that will minimize flood damage (**Moved to become objective 1E)</i>
<i>Objective 5A.E: Record, collect, and maintain comprehensive list of hazard related data. (**incorporated in objective 1D and 2C)</i>
<i>Objective 5A.F: Minimize repetitive losses caused by flooding. (**removed since the updated plan will include a section within the flooding vulnerability assessment regarding repetitive loss properties)</i>
<i>Objective 5A.G: Protect existing assets with the highest relative vulnerability to the effects of floods within the 100-year floodplain. (**Moved to become objective 2E and modified to address all hazards)</i>
<i>Objective 5A.H: Coordinate with and support existing efforts to mitigate floods (e.g., US Army Corps of Engineers, US Bureau of Reclamation, California Department of Water Resources). (**incorporated in objective 3C)</i>
B. Wildfire
<i>Objective 5B.A: Enhance citizen and Departmental understanding of wildfire threats and private property mitigation techniques through education and outreach. (**incorporated in objective 3A)</i>
<i>Objective 5B.B: Address known deficiencies in fire weather forecasting. (**incorporated in objective 1D and 2C)</i>
<i>Objective 5B.C: Strengthen existing development standards in high threat areas. (**incorporated in</i>

<u>objective 1B)</u>
<i>Objective 5B.D: Protect existing assets with the highest relative vulnerability to the effects of structural wildfire. (**incorporated in objective 2E)</i>
<i>Objective 5B.E: Coordinate with and support existing efforts to mitigate wildfire. (**incorporated in objective 3C)</i>
<i>Objective 5B.F: Address identified data limitations regarding the lack of information about the relative vulnerability of assets from wildfire. (**incorporated in objective 1D and 2C)</i>
C. Earthquakes
<i>Objective 5C.A: Protect existing assets with the highest relative vulnerability to the effects of earthquakes. (**incorporated in objective 2E)</i>
<i>Objective 5C.B: Coordinate with and support existing efforts to mitigate earthquake hazards. (**incorporated in objective 3C)</i>
<i>Objective 5C.C: Obtain better information on highest risk county owned buildings in the County</i>
<i>Objective 5C.D: Educate building owners on earthquake safety and damage reduction techniques (**incorporated in objective 1E and 3A)</i>
D. Landslide/Coastal Erosion
<i>Objective 5D.A: Perform mitigation alternative studies at known landslide-prone areas (areas of repeat sliding).</i>
<i>Objective 5D.B: Protect existing assets with the highest relative vulnerability to the effects of landslide and coastal erosion. (**incorporated in objective 2E)</i>
<i>Objective 5D.C: Improve and support existing efforts to mitigate landslide/coastal erosion. (**incorporated in objective 3C)</i>
<i>Objective 5D.D: Address identified data limitations regarding the lack of information about the relative vulnerability of assets from landslide and coastal erosion. (**incorporated in objective 1D)</i>
E. Tsunami/Coastal Storm
<i>Objective 5E.A: Address identified data limitations regarding the lack of information about the relative vulnerability of assets from tsunamis (**incorporated in objective 1D)</i>
<i>Objective 5E.B: Evaluate floodplain ordinance to determine the feasibility of encouraging floodplain construction standards in Tsunami inundation areas.</i>
<i>Objective 5E: Educate property owners in Tsunami inundation areas on preparation (**incorporated in objective 1E and 3A)</i>
F. Dam Failure
<i>Objective 5F.A: Protect existing assets with the highest relative vulnerability to the effects of a dam</i>

Comment [cmb1]: This would be better as a county specific mitigation action.

Comment [cmb2]: This would be better as a specific mitigation action rather than an objective.

Comment [cmb3]: This would be better as a specific mitigation action.

Comment [cmb4]: Included in 1E and 3A

Santa Barbara County 2011 Goals and Objectives
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<i>failure. (**incorporated in objective 2E)</i>
<i>Objective 5F.B: Coordinate with and support existing efforts to mitigate dam failure (e.g., US Army Corps of Engineers, US Bureau of Reclamation, California Department of Water Resources). (**incorporated in objective 3C)</i>
<i>Objective 5F.C: Provide dam inundation mapping as information only layer on FEMA DFIRMs and advise developers of lands in inundation areas.</i>
<i>Objective 5F.D: Protect floodplains from inappropriate development. (**incorporated in objective 1A)</i>

Comment [cmb5]: This would be better as a specific mitigation action.

Completed or In-Progress Mitigation Actions as presented in the 2004 Plan

The 2004 implementation strategies for the mitigation actions the MAC identified as completed or in-progress in 2011 are presented below with the same numbering format from the 2004 plan.

Each action is numbered by heading as follows:

- GEN (General Mitigation – or multiple hazards)
- FLD (Flood)
- WDF (Wildfire)
- EQ (Earthquake)
- LSD (Landslide)
- CE (Coastal Erosion)
- T/CS (Tsunami/Coastal Storm)
- DF (Dam Failure)

The mitigation actions included in this appendix are only those listed in the table in Section 7.2 documenting the mitigation progress as of June 2011.

In Progress Action #: GEN-2 - Enhance the dissemination of risk data: The County's web server does not currently have the capacity to serve large files such as the countywide DFIRMs and other hazard and risk data being developed for the multi hazard mitigation plan. The county would like to have a web page devoted to hazard risk communication and mitigation planning.

Priority: Very High

Objective Addressed: 2.A, 2.B, 3.A, 4.A and 4.D

Responsible Department: Public Works – Office of the County Surveyor and Disaster Recovery, County OES

Implementation Strategy:

- Increase server size of the County's webpage to be able to provide the public access to countywide DFIRMs, once DFIRMs are completed and the multi-hazard mitigation plan and associated mapping and data is available.
- Design and implement a Santa Barbara County Disaster Mitigation web page.

Timeframe for Implementation: 2 years, funding dependent.

Benefit vs. Cost: Undetermined

Potential Funding Source: Departmental Operating Budgets, FEMA Pre-Disaster Mitigation Grant, FEMA Map Modernization funding.

In Progress Action #: GEN-3 – **Obtain better data on the impacts of hazards on future development** – During the planning process there was a clear lack of information available to access future development. Between now and the next required update of the plan, the County will develop additional data.

Priority: High

Objectives Addressed: 1A, 3C, 4.A, and 4D

Coordinating Individual /Organization: Planning and Development, County Fire, OEM and Public Works – Flood Control

Implementation Strategy:

- Form a committee led by Planning and Development to identify areas where growth and development can be expected in the next 5 years based on existing plans, ordinances and codes.
- Overlay anticipated growth areas with hazard profile mapping to generally analyze potential future exposure to each hazard in terms of population, buildings and infrastructure.

Implementation Timeline: 5 Years

Benefit vs. Cost: N/A

Potential Funding Sources: Departmental Budgets

In Progress Action #: GEN-5 - **Enhance Post-Disaster Damage Inspections to Include Mitigation Strategies** – In a post storm environment the Transportation Division inspects roadways, bridges, culverts and other infrastructure for damage. This action proposes building a mitigation component into the inspection program.

Priority: Medium

Objectives Addressed: 3.A, 3.D, 4.B, 4.D, 4-F, 4.G, 5.A-C, 5.A-E, and 5.D-C

Coordinating Individual /Organization: Public Works Department – Transportation Division

Implementation Strategy: The following activities will be conducted to enhance the existing inspection program:

- Create an inspection checklist for each type of infrastructure
- Include a section on the checklist for the inspector to recommend, based on field observations what could have been done to the structure prior to the flood that might have protected it.
- Provide an annual training session (or at minimum an immediate post disaster training session) for inspectors to explain desired outcome of inspection.
- Where feasible, request Cal EMA and FEMA trained mitigation staff to accompany County inspectors and to provide in the field training and mitigation materials.

Implementation Timeline: Complete checklist and first training within 4 years of adoption of the plan, then implement with each storm event.

Benefit vs. Cost: N/A

Potential Funding Sources: Inexpensive strategy, general operating budget

Completed Action #: GEN- 6 - Critical Facility Audits: The County will conduct voluntary audits of critical facilities, identified in Section 4 as being located in the most vulnerable profiled areas for Earthquake and Flooding, to assess specific vulnerability to the hazards and develop recommendations for possible mitigation measures. The audits will be conducted first at critical facilities with a history of damage, and may be expanded to include all critical facilities.

Priority: Medium

Objective Addressed: 2.C, 4.B, 5A.A thru C, 5A.G, and 5C (all)

Responsible Department: Public Works and County OEM

Implementation Strategy:

- Develop materials explaining the purpose of the voluntary program and solicit appointments
- Visit facilities with flood control experts and engineers
- Develop a site specific list of potential mitigation measures
- Develop a pre-flood and pre-earthquake preparation check list for each facility
- Provide information on grant programs for addressing mitigation projects

Timeframe for Implementation: 3 years

Benefit vs. Cost: Undetermined

Potential Funding Source: Public Works and OEM budgets for Audits, potential assistance from USGS, US Army Corp of Engineers and Cal EMA for audits. DHS/FEMA Pre-Disaster Mitigation, Hazard Mitigation Grant Program and Flood Mitigation Assistance program for implementing mitigation measures.

In Progress Action #: FLD-1 - Increase Participation in Floodplain Re-mapping Initiative: The basis for a sound floodplain management program is the quality of the risk information upon which development decisions are made. The FEMA FIRMS are the best available depiction of overall flooding risk in the County. The current FIRMS are outdated and were developed using manual cartographic techniques, and, as such, are of little utility to the broad base of users. They are difficult to use in any practical risk assessment activity where combination with current state of the art digital data is beneficial. FEMA's flood map modernization initiative is focused on producing seamless digital flood maps on a countywide basis nationwide. The digital maps will provide a platform from which updated flood data (hydrologic, topographic and hydraulic analysis and coastal storm surge modeling) can be added at a fraction of the cost and time previously required. FEMA Region IX has begun a process of scoping mapping needs in Santa Barbara County. The county will seek an increased role in the remapping process via a Cooperating Technical Partnership (CTP) agreement with FEMA to ensure the accuracy and quality of new countywide mapping.

Priority: Very High

Objective Addressed: 1.C, 2.A, 4.A, 4.C, 4.E, and 5A.H

Responsible Department: Public Works – Water Resources Division, Flood Control

Implementation Strategy: Apply for funding under the CTP program to undertake the following activities.

- Coordinate with the incorporated cities to identify mapping needs to promote flood mitigation on a watershed basis, not on jurisdictional basis (after DFIRM production).
- Use DWR Stream Prioritization Methodology to identify high priority streams for detailed analysis studies (after DFIRM production).
- Provide a detailed needs assessment to FEMA Region IX
- Identify local cost share

Timeframe for Implementation: CTP Agreement within 1 year, project completion within 2 years

Benefit vs. Cost: Cost Beneficial – FEMA research defends that the benefits of better flood mapping data at a national level exceed the costs. From the perspective of increased NFIP participation and awareness of flood hazard in SBC, benefits would increase.

Potential Funding Source: DHS/FEMA Map Modernization Program funds via CTP Agreement, Cost share in the form of available mapping data (e.g. base mapping, topographic data, etc.)

In Progress Action #: FLD-2 - Floodplain Management and Flood Mitigation Education and Outreach: The largest losses to the NFIP in Santa Barbara County are the 26 RL structures in the South County Coastal Basin. Options for dealing with those properties structurally are very limited. Hard protection such as groins, revetments, sea walls, etc. is economically unfeasible and generally not able to gain environmental permit approval. Acquisition and demolition is also not feasible, as these are among the most expensive and most desirable properties in California. Elevation and less extensive retrofits may be an alternative. However, with view-shed restrictions and the political implications of providing grant assistance to this type of property is unlikely. For these reasons, the County has developed multiple outreach and education strategies to encourage self-responsible actions in these areas and other flood prone areas in general. The County will target education and outreach programs to a variety of audiences to not only encourage retrofit and flood loss reduction activities but to encourage flood resistant future development.

Priority: Very High

Objective Addressed: 2.A, 2.C, 3.A, 5A.A, 5A.B, 5A.D, and 5A.F

Responsible Department: Public Works, Flood Control and Water Conservation District and Disaster Recovery, and County OES.

Implementation Strategy:

- Provide flood education programs for design professionals, (engineers, architects, surveyors) on the FEMA Coastal Construction Manual and workshops on breakaway walls and floodway encroachment.
- Target flood education programs for repetitive loss property owners where owners can learn about mitigation grant programs and mitigation techniques. Invite with direct mailings. These flood education programs will also be made available to other floodplain residents also interested in flood mitigation. A local sponsor will be sought and the seminars provided at a location near the RL area.
- Provide training for real estate and insurance professionals, including the basics of the NFIP development and insurance sides
- The County will develop Flood Education Program targeted for Elementary School students, coinciding with Flood Awareness Week.
- The County will add a public outreach element and involve the community in Creek Walk activities.

- The County will conduct public outreach activities to educate the public on illegal dumping in channels (i.e., placing grass clippings in channels). This will include the use of government access television and press releases as well as web site postings

Timeframe for Implementation: Start within 1 year. Provide annually.

Benefit vs. Cost: Cost Beneficial – Although it can not be proven that this strategy will reduce the levels of damages due to a flooding events, it will likely reduce the significant economic impact to the community immediately following a flood.

Potential Funding Source: DHS/FEMA for Coastal Construction Manual Training; RL and flood prone resident training on mitigation and grants from departmental budgets with technical support from Cal EMA and FEMA Region IX; Insurance and Real Estate professionals training, from departmental capital budgets with support of FEMA’s Bureau and Statistical Agent (CSC) for insurance training; all others from departmental operating budgets.

Completed Action #: FLD-3 - Enhance Floodplain Management Ordinance: SBC has an aggressive floodplain management ordinance that exceeds the minimum standards of the NFIP (See Capabilities Assessment, Section 6.3). The County will, however, make additional changes to the ordinance to incorporate additional mitigation policies and clarification.

Priority: Very High

Objective Addressed: 1.A and 1.B

Responsible Department: Flood Control and Water Conservation District

Implementation Strategy:

- Modify Floodplain Management Ordinance to include a cumulative substantial improvement provision and clarification of the use of replacement cost minus depreciation in making substantial improvement determinations.

Timeframe for Implementation: 1 year

Benefit vs. Cost: Undetermined

Potential Funding Source: Flood Control Budget

In Progress Action #: FLD-4 - Adding Community Volunteers to Creek Walk Committees: As part of the District’s Floodplain Management Program, it conducts routine creek maintenance annually. The District has a very successful annual Creek Walk, done by an in-house Creek Walk

Committee. The Committee identifies and prioritizes maintenance needs. An Annual Routine Maintenance Plan is then developed, followed by conduct public workshops and California Environmental Quality Act (CEQA) reviews of planned maintenance projects. The main objective of the Routine Maintenance Program is to reduce flood hazard and damage to life, public property, and infrastructure by maintaining the capacity of key channels in the County. The individual flood zones fund the Routine Maintenance Program and the extent and frequency of channel maintenance is dependent upon the availability of funds. The County will add representative from the community to the committee. Community volunteers will help bridge the gap between the County and property owners, so owners take an active role in maintenance activities on their property, ultimately saving money for the County.

Priority: Very High

Objective Addressed: 2.A, 2B, 2.C, 5A.A, 5A.B, 5A.E and 5A.G

Responsible Department: Public Works, Flood Control and Water Conservation District

Implementation Strategy:

- Publish annual notice for volunteers in the local paper, Public Works website and Channel 20 Government Access television station
- Recruit individuals from high risk areas if necessary
- Hold kick-off/educational meetings to organize Walk

Timeframe for Implementation: annually

Benefit vs. Cost: Undetermined

Potential Funding Source: Flood Control Budget, Benefit Assessment Fees

Completed Action #: **FLD-5 – Carneros and San Pedro Creek Debris Barriers (Goleta)** – Debris frequently clogs culvert under Cathedral Oaks Road the crossing of these creeks, causing backwater flooding on the north side of the highway causing flooding of streets and agricultural land. In events where the water overtops the highway homes are flooded. The County has used upstream debris barriers successfully in other situations to prevent culvert clogging.

Priority: Very High

Objective Addressed: 4.C, 5A.C and 5A.G

Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District, in coordination with the City of Goleta

Implementation Strategy:

- Identify funding
- Obtain permits
- Install Debris Basins at both locations

Timeframe for Implementation: Within 2 years, funding dependent

Benefit vs. Cost: Estimated cost, based on similar past applications is \$80,000.00 per structure for a total of \$160,000. If damages are avoided to homes and streets from one flood, the project will have paid for itself.

Potential Funding Source: Flood Control Budget, FEMA (PDM-C, HMPG, FMA grants)

In Progress Action #: FLD-6 – Atascadero Creek Channel Liner Improvements (Goleta) – Footing of slope liner is becoming exposed from erosion from repeat flooding, causing creek blockage and flooding, putting hundreds of homes at risk.

Priority: Very High

Objective Addressed: 4.C, 5A.C and 5A.G

Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District, in coordination with the City of Goleta

Implementation Strategy:

- Identify funding
- Obtain permits
- Stabilize bottom grade by installing grade stabilizers and check structures

Timeframe for Implementation: Within 5 years, funding dependent

Benefit vs. Cost: Estimated cost is \$745,000.00 which includes wetland creation required for the project. Based on the number of homes that are expected to receive damage if this project is not constructed, it can be expected to be highly cost beneficial.

Potential Funding Source: Flood Control Budget, FEMA (PDM-C and HMPG grants)

In Progress Action #: FLD-7 – Las Vegas and San Pedro Creeks Culvert Additions – Undersized culverts beneath Highway 101, Union Pacific Railroad and Calle Real cause frequent and very significant backwater flooding of neighborhoods and retail areas north of the crossings. When the freeway and rail tracks are overtopped, downtown Santa Barbara becomes completely blocked,

causing major disruption to commerce. Although flooding is flashy, the highway can be (and has been) closed for more than a day, even without highway damage. These undersized culverts also contribute to flooding of the Santa Barbara Airport, interfering with three forms of transportation into and through the Goleta/Santa Barbara area. The airport has been closed several times due to flooding in the last decade. In Goleta, closure of Calle Real and flooding of numerous developed residential properties are the biggest issue. Both project locations have been studied in detail and determined to be highly cost beneficial. The solution is to expand the capacity (by deepening or widening) of existing culverts, or, in the case of Las Vegas creek, adding additional barrel culverts.

Priority: Very High

Objective Addressed: 4.C, 5A.C and 5A.G

Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District, in coordination with the Cities of Goleta and Santa Barbara

Implementation Strategy:

- Identify funding
- Obtain permits
- Increase capacity of existing culverts by constructing new ones and/or widening/deepening of existing culverts
- Although presented as one project, the County would likely obtain funding and proceed with each individually.

Timeframe for Implementation: Within 5 years, funding dependent

Benefit vs. Cost: Estimated cost is \$2.5 million per creek for a total project cost of \$5 million. With the amount of property damage and economic disruption caused by flooding, studies have determined that the project is highly cost beneficial.

Potential Funding Source: CalTrans- State Highway Operational Protection Program Funds, Flood Control Budget, South County Benefit Assessment District Funding, FEMA (PDM-C and HMPG grants and PA 401 funds), Cities of Goleta and Santa Barbara Capital Improvements Funds

Completed Action #: FLD-8 – Thornwood Drive Storm Drainage Improvements (Goleta) –

There is only one inlet for all run off in this urbanized industrial area. The piping from the inlet is in bad condition and unable to handle flows from even minor flooding events. This causes street flooding near the intersection of Thornwood Drive and Pine and significantly restricts emergency access to the area. Flooding also disrupts commerce of the industries frequently. In more significant

events, there is flooding of properties, including a demolition yard, which presents potential environmental harm to the area when flooded.

Priority: Very High

Objective Addressed: 4.C, 5A.C and 5A.G

Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District, in coordination with the City of Goleta

Implementation Strategy:

- Identify funding
- Obtain permits
- Construct gravity flow drainage system to protect the area

Timeframe for Implementation: Within 4 years, funding dependent

Benefit vs. Cost: Estimated cost is \$200,000.00. Damages avoided in large floods can be expected to significantly exceed that amount.

Potential Funding Source: Flood Control Budget, South County Benefit Assessment District Funding, FEMA (PDM-C and HMPG grants and PA 401 funds), Cities of Goleta Capital Improvements Funds

In Progress Action #: FLD-9 – Mission Creek Channel Improvements (Santa Barbara) – The Mission Creek Channel, from just below Cannon Perdido Street to the Pacific Ocean provides protection to a 10-year storm event. A significant number of homes are flooded in every major event. The County has studied and designed improvements to the Channel that would provide protection to the 25-year event. Previous funding attempts have been denied because protection is not to the 100-year flood.

Priority: Very High

Objective Addressed: 4.C, 5A.C and 5A.G

Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District, in coordination with the City of Santa Barbara

Implementation Strategy:

- Identify funding
- Procure land
- Obtain permits

- Construct channel improvements

Timeframe for Implementation: Within 5 years, funding dependent

Benefit vs. Cost: Estimated cost is \$26 million. B/C unknown.

Potential Funding Source: Flood Control Budget, South County Benefit Assessment District Funding, U.S. Army Corp of Engineers funding, City of Santa Barbara Capital Improvements Funds

Completed Action #: FLD-10 – West Side Storm Drainage Construction (Santa Barbara) – A large portion of the west side of the City of Santa Barbara is without adequate storm drainage. Urban street flooding renders an entire portion of the city inaccessible during flooding events trapping people in the west side, preventing emergency vehicle access and trapping school children at school. The county would like to construct and upgrade the size of inadequate drainage facilities.

Priority: Very High

Objective Addressed: 4.C, 5A.C and 5A.G

Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District, in coordination with the City of Santa Barbara

Implementation Strategy:

- Identify funding
- Obtain permits and engineered design
- Construct project

Timeframe for Implementation: Within 5 years, funding dependent

Benefit vs. Cost: Estimated cost is \$1.9 million. B/C unknown.

Potential Funding Source: Flood Control Budget, South County Benefit Assessment District Funding, City of Santa Barbara Capital Improvements Funds

Completed Action #: FLD-11 – Sycamore Creek Culvert Additions (Santa Barbara) – Undersized culverts beneath Highway 101 and the Union Pacific Railroad cause frequent and very significant backwater flooding of neighborhoods north of the crossings. There is also a sound barrier wall that exacerbates backwater flooding north of the freeway by acting as a dam. When the freeway and rail tracks are overtopped, serious impediments to transportation and emergency services exist, resulting in disruption to commerce. Although flooding is flashy, the highway can be (and has been) closed for more than a day, even without highway damage. The project has been studied in detail and determined to be cost beneficial. The solution is to expand the capacity is to tunnel an additional culvert under the freeway and railroad and provide breakaway panels in the sound barrier wall.

Priority: Very High

Objective Addressed: 4.C, 5A.C and 5A.G

Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District, in coordination with the City of Santa Barbara

Implementation Strategy:

- Identify funding
- Obtain permits
- Increase capacity of existing culverts by tunneling new ones under the freeway and rail tracks.

Timeframe for Implementation: Within 5 years, funding dependent

Benefit vs. Cost: Estimated cost is \$3.2 million. With the amount of property damage and economic disruption caused by flooding, studies have determined that the project is highly cost beneficial.

Potential Funding Source: CalTrans- State Highway Operational Protection Program Funds, Flood Control Budget, South County Benefit Assessment District Funding, FEMA (PDM-C and HMPG grants and PA 401 funds), City Santa Barbara Capital Improvements Funds

In Progress Action #: FLD-12 – San Ysidro Creek Realignment – North of Highway 101, in the Montecito area of the County, the San Ysidro Creek makes two 90 degree bends prior to reaching the culvert, causing backwater flooding to agricultural lands and some residential areas. The water also overtops the freeway disrupting transportation, emergency services and commerce. The County will realign the creek to speed water under the highway and prevent backwater flooding.

Priority: Very High

Objective Addressed: 5A.C and 5A.G

Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District

Implementation Strategy:

- Identify funding
- Obtain permits
- Construct realigned channel

Timeframe for Implementation: Within 3 years, funding dependent

Benefit vs. Cost: Estimated cost is \$260, 000.00, which includes wetlands restoration. The project is expected to be highly cost beneficial.

Potential Funding Source: CalTrans- State Highway Operational Protection Program Funds, Flood Control Budget, South County Benefit Assessment District Funding, FEMA (PDM-C and HMPG grants)

In Progress Action #: FLD-13 – Padaro Lane Ditch Improvements – An existing drainage ditch along Padaro Lane in the Summerland area of the County is overgrown and unable to pass significant storm events. The result is flooding of residences. The County has studied and identified three mitigation alternatives and has chosen the one that it believes is most feasible and cost effective.

Priority: Very High

Objective Addressed: 5A.C and 5A.G

Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District

Implementation Strategy:

- Identify funding
- Obtain permits
- Widen ditch and improve inlet and outlet structures

Timeframe for Implementation: Within 3 years, funding dependent

Benefit vs. Cost: Estimated cost is \$350,000.00, which includes wetlands restoration. The project is expected to be cost beneficial.

Potential Funding Source: Flood Control Budget, South County Benefit Assessment District Funding, FEMA (PDM-C and HMPG grants)

In Progress Action #: FLD-14 – Foster Road Storm Drainage Improvements – Foster Road in Orcutt, near the Santa Maria Airport, has no drainage facilities and becomes impassable in minor flooding events. The road provides access to County facilities, including critical facilities included in Section 4.

Priority: Very High

Objective Addressed: 5A.C and 5A.G

Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District

Implementation Strategy:

- Identify funding
- Obtain permits
- Construct storm drainage facilities

Timeframe for Implementation: Within 3 years, funding dependent

Benefit vs. Cost: Estimated cost is approximately \$ 1,000,000.00. B/C ratio is currently unknown.

Potential Funding Source: Flood Control Budget, FEMA (PDM-C and HMPG grants)

In Progress Action #: FLD-15 – Santa Maria Levee Protection Project– Nearly the entire City of Santa Maria is protected by a levee. It was constructed in the 1960’s by the U.S. Army Corp of Engineers and is maintained under contract agreement with the County Flood Control District. Within one portion of the levee the river is changing direction and threatening to erode the banks. The County will undertake a project to decrease velocity flows.

Priority: Very High

Objective Addressed: 4.A, 4.C, 5A.D and 5A.G

Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District in cooperation with the City of Santa Maria

Implementation Strategy:

- Identify funding
- Obtain permits
- Plant willow trees along banks of levee to reduce velocity flows.

Timeframe for Implementation: Within 3 years, funding dependent

Benefit vs. Cost: Estimated cost is approximately \$490,000.00. B/C ratio is currently unknown.

Potential Funding Source: Flood Control Budget, U.S. Army Corp of Engineers, FEMA (PDM-C and HMPG grants)

In Progress Action #: FLD-16 – Los Alamos Storm Drainage Project – A canyon in the unincorporated Town of Los Alamos drains to Centennial Street. There are no storm drainage facilities in the area. A study and benefit cost analysis has been conducted. It was determined that 26 homes could avoid flood damage if the stormwater was put into an underground drainage system down the length of Centennial Street to San Antonio Creek.

Priority: Very High
Objective Addressed: 5A.C and 5A.G
Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District

Implementation Strategy:

- Identify funding
- Obtain permits
- Construct Storm Drainage Facilities

Timeframe for Implementation: Within 3 years, funding dependent

Benefit vs. Cost: Damages avoided for more than 25 residential buildings. Project was determined to be cost beneficial. Estimated cost is \$2 million

Potential Funding Source: Flood Control Budget, FEMA (PDM-C and HMGP grants)

In Progress Action #: **FLD-18 – Expand Kovar Regional Basin** – The Kovar Basin is the existing regional retention basin for stormwater for Santa Maria. Due to significant development and increases in impervious surfaces in and around Santa Maria, it is now undersized and overtops causing flooding of fields and agricultural land.

Priority: High

Objective Addressed: 5A.G

Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District

Implementation Strategy:

- Identify funding
- Obtain permits
- Construct expanded basin

Timeframe for Implementation: Within 3 years, funding dependent

Benefit vs. Cost: Estimated cost is approximately \$500,000.00. B/C ratio is currently unknown.

Potential Funding Source: Flood Control Budget, FEMA (PDM-C and HMPG grants)

In Progress Action #: FLD-19 – San Antonio Creek Improvements – The San Antonio Creek in the unincorporated town of Los Alamos is undersized and overgrown with vegetation. The County would like to clear and widen the channel to reduce flooding in Los Alamos.

Priority: High

Objective Addressed: 5A.C and 5A.G

Responsible Department: Public Works, Water Resources Division - Flood Control and Water Conservation District

Implementation Strategy:

- Identify funding
- Obtain permits
- Construct channel improvements

Timeframe for Implementation: Within 5 years, funding dependent

Benefit vs. Cost: Estimated cost is \$1.2 million. B/C ratio is unknown.

Potential Funding Source: Flood Control Budget, U.S. Army Corp of Engineers funding, FEMA (PDM-C and HMGP grants)

In Progress Action #: FLD-20 - Monitor RL properties for Substantial Improvement: SBC will monitor RL properties for substantial improvements and will complete RL verification forms to keep FEMA lists current. SBC will further monitor the performance of Substantially Improved buildings meeting current NFIP standards after floods.

Priority: High

Objective Addressed: 1.C, 5A.E, 5A.F, and 5A.G

Responsible Department: Flood Control and Water Conservation District

Implementation Strategy:

- Create spreadsheet for RL structures to track all improvements and performance during storms
- Update RL Verification sheets when RL properties are substantially improved.
- Include copy of improvement and performance spreadsheet in District file for each property

Timeframe for Implementation: Ongoing

Benefit vs. Cost: Undetermined

Potential Funding Source: Flood Control Budget

In Progress Action #: FLD-21 - Repetitive Loss Structure Voluntary Audits: The County will conduct voluntary audits of repetitive loss structures to assess specific vulnerability to flood hazards and develop recommendations for potential mitigation measures. These programs will be geared to educating homeowners on potential mitigation strategies. As part of this program, the County will pursue removing repetitive loss structures that no longer qualify as repetitive losses.

Priority: High

Objective Addressed: 2.A, 3.B, 5A.A, 5A.B, 5A.D, 5A.F and 5A.G

Responsible Department: Flood Control and Water Conservation District

Implementation Strategy:

- Develop materials explaining the purpose of the voluntary program and solicit appointment
- Visit facilities with flood control experts and engineers
- Develop a site specific list of potential mitigation measures
- Develop a pre-flood preparation check list for each facility
- Provide information on grant programs for addressing mitigation projects

Timeframe for Implementation: 2 years

Benefit vs. Cost: Undetermined

Potential Funding Source: Flood Control Budget and OEM budgets for Audits, potential assistance from USGS, US Army Corp of Engineers and Cal EMA for audits. DHS/FEMA Pre-Disaster Mitigation, Hazard Mitigation Grant Program and Flood Mitigation Assistance program for implementing mitigation measures.

In Progress Action #: FLD-22 - Provide Incentives for RL and other flood prone property owners to retrofit homes to be safer from flooding or to construct new homes to higher standards: Residents often react more positively to incentives than to regulation or participation in government programs. Santa Barbara County will investigate development of an incentive program for retrofits and other safety/protective enhancements.

Priority: High

Objective Addressed: 2.A, 2.D, and 5A.B

Responsible Department: Public Works, Flood Control and Water Conservation District and Disaster Recovery, County Legal Department.

Implementation Strategy:

- The County will also evaluate implementing a “Flood Safe” certification program for homes, similar to the star system used to rate vehicle safety in California. Real Estate professionals can use certification as a selling point for homes.

Timeframe for Implementation: Complete evaluation and program design within 2 years

Benefit vs. Cost: Cost Beneficial – The relatively low cost of developing such an incentive program should easily be off set by damages avoided even if only a few participate.

Potential Funding Source: Departmental Operating Budgets

Completed Action #: FLD-25 - Cachuma Lake Recreational Area Rip-rap installation around water intake

Lake is used for flood retention during flooding events. Surcharge levels increase water surface by 3 feet which creates flood and wave action around the water intake for the water treatment facility. The County will install rip-rap protection around the inlet to prevent future damage.

Priority: High

Objectives Addressed: 5A.C and 5A.G

Coordinating Individual /Organization: Santa Barbara County Parks

Implementation Strategy: Preliminary design and cost estimation completed.
Hire Engineering firm to design and permit protection
Construct protection

Implementation Timeline: 2 years from adoption of plan.

Benefit vs. Cost: Cost is estimated to be \$225,000, B/C Unknown. Not implementing could result in loss of intake due to excessive erosion and loss of water service to facility.

Potential Funding Sources: DOI, Bureau of Reclamation, FEMA (401, 404, PDM), General Fund

Completed Action #: FLD-30 - Richardson Park Pedestrian Bridge Replacements – Two pedestrian bridges over Salisbury Creek (tributary to Cuyama River) and their abutments are damaged from years of channelized flood flows and are in imminent danger of collapse. The County would like to replace the bridges with new ones capable of passing 100 year flows, if feasible.

Priority: High

Objectives Addressed: 5A.C and 5A.G

Coordinating Individual /Organization: Santa Barbara County Parks

Implementation Strategy: Obtain structural and hydraulic design
Identify funding
Construct project

Implementation Timeline: 3 years from adoption of plan.

Benefit vs. Cost: Cost is estimated to be approximately \$300,000. B/C Unknown. Loss of bridges forces school children to use the highway shoulder to access the school site.

Potential Funding Sources: Recreational Development Impact Fees (QUIMBY) for design
FEMA (401, 404), General Fund

Completed Action #: FLD-32 - Replace, Repair and Upgrade of Existing Undersized Culverts That Create Adverse Flooding Conditions

Priority: High

Objectives Addressed: 5A.C and 5A.G

Coordinating Individual /Organization: Public Works Department – Transportation and Flood Control

Implementation Strategy: Based on known undersized problematic culverts and other identified by Action FLD-31, above, implement a program to systematically evaluate the benefits (and downstream potential impacts) of replacements. Prioritize replacements, identify funding sources, complete designs and construct replacements.

Implementation Timeline: Initial Studies will be undertaken within 3 years of adoption of this plan depending on successful procurement of funding through Grant Application(s).

Benefit vs. Cost: Must be determined on a culvert-by-culvert basis during prioritization.

Potential Funding Sources: County Measure D Revenues to implement program of evaluation and prioritization. Possible FEMA grant funding (PDM, FMA, HMGP (404) and 401) for actual replacements.

Completed Action #: FLD-33 - Santa Barbara Bowl Storm Drainage Improvements

The Bowl was built in 1936 as a one-time-a-year performance venue for the Santa Barbara Fiesta. Today the Bowl is primarily a late spring, summer and early fall concert venue and is a communal center, providing a place where people can participate in community performances. Seasonal runoff descends from the upper level (Rivera) down both sides of the canyons and around the stage area to a seasonal creek in the Glen and ultimately to the City of Santa Barbara’s storm drains. Excessive run-off has caused damage to the Bowl on many occasions, with repeat damages to the stage area, parking lots, and floods Milpas Street on the East Side of Santa Barbara. Specific damage descriptions are as follows:

Damage Description No. 1.

Flooding off the west drive portion of the Bowl from an existing 16” CMP will cause approximately 2 acres of hillside decay, approximately 0.5 acres asphalt roadway washout, the front offices could be flooded with interior damage closing the Bowl for repairs and suspending all services. Additionally, this flooding has caused road closure at Milpas Street and flooded the adjacent apartments.

Damage Description No. 2.

Approximately 125 feet of 65% grade hillside is collapsing a walkway located at the back seating area of the Bowl. Currently, there are a line of K-rails that keeps the gravel, dirt and boulders from coming onto the walkway area.

Damage Description No. 3.

A 24” concrete drainage connector at the top of the stairs of the Bowl, near the lighting – hillside area, is improperly designed. Water runoff is supposed to go into the drainage but the design and concrete asphalt are worn.

Damage Description No. 4.

Approximately 200 feet from the top of the stairway is a 12 inch CMP which is supposed to collect run off. Because of the asphalt wear, the water by-passes the drainage causing hillside erosion and asphalt damage.

Priority: High

Objectives Addressed: 2.C, 3.B, 4.C, 5A.C and 5A.G

Coordinating Individual /Organization: Santa Barbara County Parks, with Santa Barbara Bowl Foundation and in cooperation with the City of Santa Barbara

Implementation Strategy:

- Install and fit 135 ft of 24” CMP to an existing 16” CMP located on the west side of the Bowl. The 24” CMP will be buried beneath the existing roadway and walkway which will connect to the 36” CMP located at the center of the Bowl parking lot.
- Build a 125 foot X 6 feet high MBG (Metal Beam Guard), or CIP (Cast in Place) Rock retaining wall.
- Reshape and design a 25 foot X 40 foot section of asphalt to recapture the runoff from adjacent hillside without causing tripping hazards to the public.
- Remove and replace a 50’ X 10’ feet section of asphalt to properly drain into the existing 12” CMP against roadway.

Implementation Timeline: 5 years from adoption of plan.

Benefit vs. Cost: Cost is estimated to be approximately \$750,000 and is expected to avoid future losses that exceed that amount.

Potential Funding Sources: Santa Barbara Bowl Foundation Funds, FEMA (401, 404 PDM)

Completed Action #: **FLD-38 - Miguelito Park Embankment and Bridge Protection** – Miguelito Creek is eroding the road embankment and causing scour damage around bridge footings. The County will evaluate installing revetment, extending bridge abutments and other structural measures to mitigate scour.

Priority: Medium

Objectives Addressed: 5A.C and 5A.G

Coordinating Individual /Organization: Santa Barbara County Parks

Implementation Strategy: Retain engineer to design protection
Identify funding
Obtain permits
Construct improvements

Implementation Timeline: 5 years from adoption of plan.

Benefit vs. Cost: Cost is estimated to be \$200,000 and is expected to save more than that amount via avoided damages.

Potential Funding Sources: FEMA (401, 404), General Fund

Completed Action #: FLD-41 - Santa Rosa Park Culvert Replacement – Santa Rosa Road runoff floods park entrance road causing erosion and road damage. The County will install a culvert under the park road to divert runoff underground and avoid road damage.

Priority: Medium

Objectives Addressed: 5A.C and 5A.G

Coordinating Individual /Organization: Santa Barbara County Parks

Implementation Strategy: Complete in house design
Identify funding
Construct culvert

Implementation Timeline: 5 years from adoption of plan.

Benefit vs. Cost: Cost is estimated to be \$50,000 and is expected to save more than that amount via avoided damages to the park road.

Potential Funding Sources: FEMA (401, 404), General Fund

Completed Action #: FLD-43 - Loon Point Beach Access Trail Erosion Protection – Drainage from canyon, railroad and Highway 101 severely erodes a portion of the trail frequently (recently 1995, 1998, 2000 and 2001). The trail is also eroded by high tide run up. A design exists to place hard surfaces, water bars, berming, appropriate drainage structures, and hardening on the seaward side of the trail. The design has been successfully implemented in similar locations. The County will seek funding to permit and construct the project.

Priority: Medium

Objectives Addressed: 5A.C and 5A.G

Coordinating Individual /Organization: Santa Barbara County Parks (in coordination with private property owners for construction easements)

Implementation Strategy: Design is in place. Identify funding, obtain appropriate permits and construct project.

Implementation Timeline: Seek funding within 1 year of plan adoption. Construct within 2 years from receipt of funding.

Benefit vs. Cost: The project is estimated to cost \$80,000. Each time the trail is damaged by a storm approximately \$15,000 worth of repair is needed. These costs are expected to be avoided in future events.

Potential Funding Sources: FEMA (401, 404, PDM), General Fund

In Progress Action #: WDF-1 – Update Fire Hazard Severity Zone Mapping – Building construction standards and other development standards discussed in previous sections of the plan for high fire hazard are based on fire hazard zone mapping. The State of California is required to determine fire hazard severity zones and produce mapping. The Fire Department and County hold the maps for the local responsibility area. Fire threat is not a static hazard and changes with numerous variables. The County will work with the State of California to ensure that it has appropriate input in the development of new mapping.

Priority: Very High

Objectives Addressed: 1.C, 2.B, 3.D, 4.A, 5B.C, 5B.F

Coordinating Individual /Organization: County Fire Department, CAL Fire

Implementation Strategy:

- Arrange a meeting of stakeholders with states to provide input
- Involve cities in meeting with state
- When new mapping is obtained, re-evaluate exposure analysis to determine what changes are necessary

Implementation Timeline: Within 5 years

Benefit vs. Cost: With more accurate hazard maps, existing and any new development standards will be enforced in areas where the need is highest, ultimately resulting in avoided losses. The State’s program has determined that hazard mapping is cost effective.

Potential Funding Sources: General Fund, California Department of Forestry and Fire Services

In Progress Action #: WDF-3 – Evaluate Enhancements to Defensible Space Program – The Defensible Space Program gives the county legal authority to cite and recover expenses associated with required vegetative maintenance and other fire mitigation activities that private property owners are required to perform annually, if they do not comply and the county has to expend funds to enforce the standards. The county will evaluate the current enforceable standards to determine if

updates are feasible, and then make those updates. It would be helpful if the program was designed in a way that the variables that affect threat were included as regulatory parameters.

Priority: High

Objectives Addressed: 1.A, 1.B, 1.C, 5B.C, 5B.D, and 5B.E

Coordinating Individual /Organization: County Fire Department

Implementation Strategy:

- Evaluate all current standards and produce a brief report with recommended revisions
- Go through the process of adopting changes to the program, including public participation

Implementation Timeline: Identify recommendations within 1 year, Codify changes within two years.

Benefit vs. Cost: More appropriately designed standards based on the many variables that are unique to sites can be expected to result in losses avoided in the future.

Potential Funding Sources: General Fund

In Progress Action #: WDF-4 – Santa Barbara County Unit Fire Plan – The County is currently in the process of updating its Unit Fire Plan which provides policy guidance for many of the Fire Department’s programs. The process involved in writing and updating the plan is similar to the process used for this plan. The plan addresses fuel treatments including: prescription burning, fuel modification, fuel breaks, and fuel reduction. The County will ensure that the plan considers the vulnerability assessment and mitigation actions identified in this plan as it completes the Unit Fire Plan.

Priority: High

Objectives Addressed: 1.A, 5B.A, and 5B.E

Coordinating Individual /Organization: County Fire Department

Implementation Strategy:

- Utilize template created by CAL Fire which is designed to meet requirements set forth in the California Strategic Fire Plan and the National Fire Plan.

- Evaluate multi-jurisdictional multi hazard mitigation plan while completing the Unit Fire Plan.
- Incorporate the recommendations and actions contained in the Unit Fire Plan into this document during the next routine update.

Implementation Timeline: Complete Unit Fire Plan within 2 years, and incorporate its recommendations and actions into this plan at the first five year update, or sooner.

Benefit vs. Cost: N/A

Potential Funding Sources: General Fund, DHS-Firefighter Assistance Grants

In Progress Action #: WDF-5 – Increase GIS Capabilities within Fire Department –The manipulation and analysis of spatial data significantly improves day to day operations and planning functions of the Fire Department which results in operational efficiency and cost savings. County Fire utilizes GIS on a daily basis. Since the last update of this plan new hardware and software have been purchased and GIS operations are being performed out of the Department’s Vegetation Management Section. GIS has been used to create a new Map Book and dispatching grid system based on the US National Grid for the Department. Currently a Wildland Pre Plan mapping project is being worked on to enhance the ability to respond to emergencies as well as prepare for emergencies.

Priority: High

Objectives Addressed: 4.D, 4.F, 4.G, 5B.E

Coordinating Individual /Organization: County Fire Department

Implementation Strategy:

- Create a full time GIS Technician position (new)
- Upgrade hardware and software to meet ever changing technology
- Train key Staff in the use to of the software
- Migrate current planning applications to the GIS System
- Develop web based application accessible to all County Fire employees

Implementation Timeline: 5 Years, funding dependent

Benefit vs. Cost: Unknown

Potential Funding Sources: DHS-Firefighter Assistance Grants, General Fund, DHS-FEMA PDM-C Grants, USGS Grants

Completed Action #: WDF-6 – Staffing of Operations Division of Fire Department – County fire is lacking in its ability to actually complete projects that result in mitigation benefits. For example, if a fuel breaks are needed, the projects to cut them are typically grant funded. It is very difficult to fund positions with variable grant funds. The County needs fire hand crews in the Operations Division.

Priority: Medium

Objectives Addressed: 5B.D

Coordinating Individual /Organization: County Fire Department

Implementation Strategy:

- Identify potential staff funding sources for additional fire hand crew staff

Implementation Timeline: Make recommendations to hiring managers and Board of Supervisors within 1 year of plan adoption.

Benefit vs. Cost: N/A

Potential Funding Sources: Additional staff resources to seek funding sources

In Progress Action #: EQ-2 - Seismic Rehabilitation of Existing Bridge Structures. – Several Bridges within the unincorporated area of Santa Barbara County do not meet current seismic design standards and are in danger of collapse. Over the past decade, the County has initiated an aggressive campaign to retrofit 11 bridges to current seismic code, or replace them, when more cost effective than retrofitting. Due to Santa Barbara’s history of significant seismic events, and a large collection of active faults capable of large magnitude events, it is in the best interest of the public’s safety that these projects are completed in an expedited manner. Many of these roads are important routes for emergency service vehicles, public travel and commerce.

Priority: High

Objectives Addressed: 5C.A and 5C.B

Coordinating Individual /Organization: Public Works Department - Transportation

Implementation Strategy: In order to minimize damage during a large magnitude seismic event, the County of Santa Barbara has undertaken steps to inventory the bridges in

the County, and implement seismic rehabilitation or replacement strategies. Designs for all structures that have been designated as Seismic Deficient have been initiated or are completed. One of the 11 bridges has already been retrofitted and another replaced. The county will implement the remaining designs.

Implementation Timeline: Design activities have taken place since 1997 and will continue until the seismic deficiencies of all 11 bridges have been addressed. It is anticipated that the final construction activities for all projects will be completed within the next 5 years

Benefit vs. Cost: The benefit of protecting public safety against bridge collapse is expected to significantly exceed the cost of retrofits and/or replacements.

Potential Funding Sources: Federal Highway Bridge Replacement and Rehabilitation Program, County Measure D Revenues, FEMA (401, 404)

Completed Action #: EQ-3 – Obtain Liquefaction Hazard Data for Vulnerability Analysis – Consistent and accurate Liquefaction mapping is not available at the County level. While most soil types are hard in the county, there are areas such as downtown Santa Barbara and other coastal and inland areas where liquefaction is a threat. The California Geologic Survey and others have been producing liquefaction mapping in southern and northern California, with the intention of eventually mapping the entire State. The County will monitor progress on mapping initiatives and will seek other data to better analyze the potential threat of Liquefaction.

Priority: Medium

Objectives Addressed: 3.D and 4.A

Coordinating Individual /Organization: County Fire, Planning and Development, Public Works – Administration (Disaster Recovery Manager), OEM, all in cooperation with the 8 cities.

Implementation Strategy:

- Gather data and mapping of liquefaction hazards from Comprehensive Plan, Cities General Plans (Carpinteria, for example) and other sources.
- Meet with State Geologic Survey and others involved in mapping initiative to discuss the status of liquefaction mapping efforts
- Provide progress update by first update of this plan

Implementation Timeline: 5 years

Benefit vs. Cost: Unknown

Potential Funding Sources: General Fund

Completed Action #: CE-11 - Geotechnical Investigation and Rehabilitation of Beach Access Stairways in Isla Vista - Several Stairways along the coastal community of Isla Vista that allow public access to the beach have been damaged due to coastal erosion forces, and the salt corrosive environment. Additionally, existing culverts have reached the end of their service lives and are spilling water directly onto the stairways and coastal bluff. Existing culverts will be slip lined to increase their service life which will protect the stairways access points and reduce direct impact on the coastal bluff.

Priority: Medium

Objectives Addressed: 5D.B

Coordinating Individual /Organization: Public Works Department – Transportation

Implementation Strategy: This project will be implemented at the following public coastal beach access points: Escondido Pass, Camino Pescadero, and Camino Del Sur

The following activities will be undertaken to implement this strategy:

- Replace corroded hardware or damaged wood sections of stairways
- Slip line existing culverts to increase their service life and extend their length and/or redirect flow away from stairways and coastal bluffs

Implementation Timeline: Within 3 years of plan adoption.

Benefit vs. Cost: Cost is estimated at approximately \$300,000 which includes slip lining culverts and replacing damaged elements. B/C Unknown.

Potential Funding Sources: Coastal Resource Enhancement Fund Grant, County Measure D Revenues

Completed Action #: TSN/CS-1 - Re-evaluate Tsunami Hazard Identification and Risk Assessment In Subsequent Updates to this Plan – The areas of potential maximum Tsunami inundation profiled and mapped as part of Section 4 of this plan were based on a study conducted by NOAA and the USC – Tsunami Research Center. The findings of the study were mapped on 30 meter resolution digital elevation models by Cal EMA and was intended for evacuation planning purposes only. While the scale of the analysis conducted for this study was intended to provide a relative analysis of exposure, the County would like to spend additional effort to ensure that the geographical extent of the hazard is consistent with

a more localized topographic delineation and is consistent with Tsunami inundation research and mapping from City General Plans and other research.

Priority: Medium

Objectives Addressed: 1A, 3D, 4A, and 5E.A

Coordinating Individual /Organization: Planning and Development Department, Public Works Administrative Division (Disaster Recovery Manager) and OEM

Implementation Strategy: To better analyze actual vulnerability to Tsunami inundation, the County will implement the following activities:

- Identify additional Tsunami studies from existing sources
- Identify additional Tsunami mapping and/or elevation data from other sources
- Conduct a comparison of all data available
- Based on more accurate topography and findings, re-delineate the Tsunami inundation elevation and conduct a GIS spatial analysis to determine the exposure of building and infrastructure in the area

Implementation Timeline: Within 4 years of Adoption

Benefit vs. Cost: Unknown

Potential Funding Sources: Capital Budget

In Progress Action #: TSN/CS-2 – Tsunami Plan Consistency and Outreach – Santa Barbara County is currently preparing a countywide Tsunami Plan that covers emergency response actions associated with tsunami events. Santa Barbara County receives advisory messages and warnings through an emergency services microwave/computer communications network from Coast and Geodetic Survey Stations. If a seismic wave or tidal disturbance has been observed, the main system at the Honolulu Observatory will transmit warnings to satellite stations including the time of occurrence of the disturbance, the location, verification of tsunami generation, and expected arrival times at various points along the Pacific coast. The County will ensure that the plan is consistent with the relevant goals, objectives and actions outlined in this plan and institute Tsunami/Coastal Storm awareness education activities.

Priority: Medium

Objectives Addressed: 1A, 4A, and 5E.C

Coordinating Individual /Organization: Planning and Development Department, Public Works Administrative Division (Disaster Recovery Manager) and OEM

Implementation Strategy:

- Incorporate Tsunami Plan findings and recommendations into the next update of this plan
- Develop Tsunami and Coastal Storm Awareness training for citizens and businesses in inundation areas
- Deliver training to targeted audiences of citizens and business owners in inundation areas

Implementation Timeline:

Incorporate Tsunami Plan findings within 2 years. Develop outreach plan and materials within two years. Deliver training in year three and annually thereafter.

Benefit vs. Cost:

Unknown

Potential Funding Sources:

General Fund or Departmental Operating Budgets, Cal EMA, USC-Tsunami Research Center